



sartorius stedim
biotech

Peace of mind
with triple-A polishing technologies



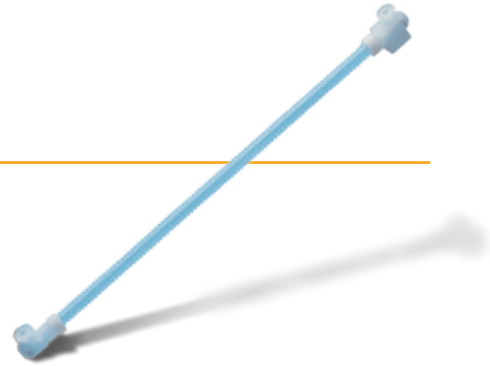
turning science into solutions

UVivatec[®] virus inactivation based on UV-C irradiation

Inactivation of viruses using the UVivatec[®] technology is based on nucleic acid damage caused by UV-C irradiation.

The novel helical module design provides uniform irradiation through efficient radial mixing based on dean vortices. UVivatec[®] shows efficient (> 4 log) inactivation of both small non-enveloped viruses (20 nm) e.g. PPV, MVM and larger enveloped viruses (>50 nm) e.g. MuLV from biopharmaceutical feed stream by UV-C irradiation (254 nm) while maintaining product integrity.

- Novel helical module with optimized hydrodynamic design
- Uniform irradiation through efficient radial mixing based on dean vortices
- Narrow residence time distribution
- Single use module concept
- Robust & scalable



Applications

- Viral vaccines e.g. rabies & influenza
- Large molecules e.g. factor VIII, IgM
- Blood & plasma products
- Fermentation media
- Difficult to filter solutions



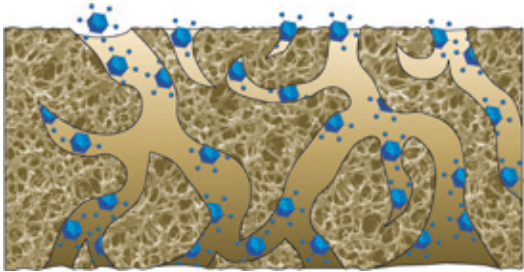
◀ Find out more about UVivatec[®] at www.sartorius.com/uvivatec




Wivatec

Sartobind® Membrane Adsorbers

Virus removal with Sartobind® Membrane Adsorbers is based on adsorptive ion exchange chromatography principles. The macroporous structure (>3 µm) of the membrane allows viruses to bind to the inner pore surface easily.



The Membrane Adsorber technology offers a number of benefits compared to conventional chromatography such as easy handling, high flow rates, more than ten fold binding capacities for viruses, less hardware investments, less buffer consumption and easy scale up.



- No size exclusion effects
- > 6 LRV for viruses
- With effective DNA|HCP removal



◀ Find more information about Sartobind® at
www.sartorius.com/sartobind



Virosart® virus removal based on size exclusion

The Virosart® PES based virus filter family for the robust and efficient removal of small non-enveloped and large enveloped viruses. Virosart® filters provide highest virus safety to the biopharmaceutical product.

- > 4 log for small non-enveloped viruses
- > 6 log for large enveloped viruses
- Clearance not effected by throughout or flow decay
- Protein transmission IgG > 95%
- Water based integrity test
- Autoclavable | SIP



Virosart® HF

- New high speed virus filtration
- Monoclonal antibodies
- Recombinant proteins

Virosart® CPV

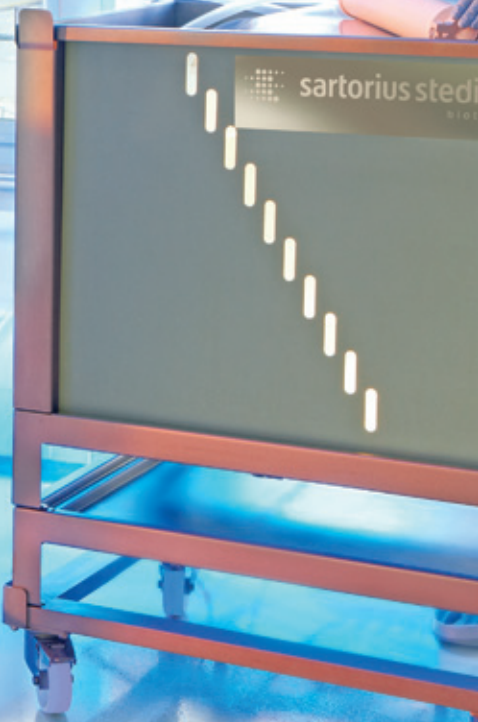
- Monoclonal antibodies
- Hydrophilic recombinant proteins
- Fermentation media

Virosart® HC

- Hydrophobic feed streams such as IVIG
- Blood & plasma applications
- Hydrophobic proteins & Mab's

Virosart® Max

- Adsorptive prefilter for Virosart® virus filters





Peace of mind with triple-A polishing technologies

UVivatec® virus inactivation, Sartobind® membrane chromatography and Virosart® filtration represent today's spearheading technologies for quantitative virus and contaminant clearance. Together they form a unique orthogonal platform for state of the art polishing of biopharmaceuticals.



◆ Find more information at
www.sartorius.com/polishing-technologies

We support you in developing your Polishing Strategy.

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