

Pegasus™ SV4

VIRUS REMOVAL MEMBRANE FILTER DISCS

Pegasus™ SV4 virus removal filters combine robust, high viral clearance of parvovirus and larger viruses with high throughput capacity and stable flow rates, in both dilute and complex concentrated biological fluids (Figure 1). Consistent flow rates and throughput performance provide optimized control of process costs and help maximize virus filtration economy.

Pegasus SV4 virus removal membrane filter discs are purpose-designed for small-scale membrane qualification studies such as bacteriophage or prion infectious agent in transmissible spongiform encephalopathies clearance, as well as membrane flow rate, capacity and protein transmission studies. Filter discs are lot-sample tested and manufactured under a quality management system certified to ISO 9001:2008.



Fig 1. Pegasus SV4 virus removal membrane filter discs.

Materials

Filter fluid path components meet the specifications under section <88> biological reactivity tests *in vivo* listed in the current revision of the United States Pharmacopeia (USP) for class VI plastics at 121°C.

Features and benefits

Features	Benefits
Constant flow and high-throughput performance	Helps maximize virus filter process economy
Identical membrane to larger production scale Pegasus SV4 virus filter cartridges	Offers reliable scalability
Used in Cytiva FTK-200 disc holder	Easy handling
Individual membrane box identified by lot number	Complete traceability of manufacturing history
Manufacturing-lot sample tested	Consistent high quality
Membrane bacteriophage tested	Consistent high quality
Pre- and post-use installation testable	Consistent high quality at point of use
Low protein binding	High protein recovery
Robust membrane with high viral clearance and resistance to plugging	Flow decay reduced at high virus spike concentrations and with complex or concentrated feeds

Technical specifications

Item	Materials of construction
Membrane	Hydrophilic modified polyvinylidene fluoride (PVDF)
Support disc	Polypropylene (non-woven)
O-ring (disc holder)	Ethylene-propylene-diene (EPDM)
Disc holder	Stainless steel

Pore size (nominal)

20 nm

Retention ratings (virus)

Bacteriophage PP7 > 4 log TR ^(1, 2)

⁽¹⁾ Claims based on challenge with parvovirus model bacteriophage (bacterial virus) PP7

⁽²⁾ > 4 LRV for PP7 bacteriophage per parenteral drug association (PDA) TR 41 rating method for small virus-retentive filters
> 4 LRV typically with mammalian parvoviruses

Effective surface area

11.1 cm² (1.72 in.²) in FTK-200 disc holder

Operating parameters ⁽³⁾

Recommended temperature 4°C to 45°C

Maximum operating pressure 5 barg

Maximum differential pressure 4.5 bard

Recommended operating differential pressure 2.1 to 3.1 bard

1 bar = 14.5 psi = 0.1 MPa

⁽³⁾ Maximum air/gas pressure for installation test is 6.2 barg

Ordering information

Description	Product code
Filter discs (5 per box)	FTKSV404705
Filter discs (25 per box)	FTKSV4047025
FTK-200 disc holder	FTK-200

Further equipment recommended for laboratory testing

Pressure vessels (stainless steel)	Product code
Sealkleen™ vessel	ZLK702G23LHKH4

Accessories (Sealkleen vessel)	Product code
Adapter 1 in. tri clamp (TC)/male Stäubli connector plug (3 mm) ¼ in.	GFX0290
Adapter 1 in. TC connector plug ¼ in. NPT (FTK-200 inlet fitting)	GFX0390
Male Stäubli connector plug ¼ in. (3 mm)	GFX0235

Pressure vessels (disposable)	Product code
Novasip™ vessel	C3EP1

Accessories (Novasip vessel)	Product code
Adapter 1 in. TC/male Stäubli connector plug ¼ in. (3 mm)	GFX0290
TC clamp + silicone gasket	SLK1TC23H4

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