

Sartobind® Lab IEX 15, 75 and 100

Laboratory Scale
Ion Exchange Membrane
Adsorbers

Product Information

The Sartobind® Lab units with ion exchange (IEX) membranes are ready-to-use for laboratory experiments. Due to their large pore size of $>3\ \mu\text{m}$ the membranes are ideal for capture of large proteins and viruses, without observing size exclusion effects. The Lab IEX units can be operated manually by a syringe or on a FPLC system.

These units combine the advantages of Sartobind® membrane adsorbers with a syringe filter design, allowing for rapid and easy sample purification.



Benefits

- Ready-to-use units
- Reusable*
- High flow rate: up to 30 bed volumes per minute
- High dynamic binding capacity for large proteins and viruses
- Fast and convenient operation by syringe
- Compatible with peristaltic pumps or liquid chromatography systems
- Connect in series for increased binding capacity

For process development studies intended for later scale-up, we recommend to use Sartobind® Nano 1 or 3 mL capsules**.

Applications

Capture

- Proteins
- Viruses
- Oligonucleotides
- Plasmids

Contaminant removal

- DNA
- Viruses
- Host cell proteins
- Leached protein A
- Endotoxins

Technical Data

Specifications

Materials of construction	
Housing	Polypropylene
Membrane matrix	Stabilized reinforced cellulose, nominal pore size >3 µm

Membrane ligands	
Strong basic anion exchanger	Quaternary ammonium (Q) R-CH ₂ -N ⁺ (CH ₃) ₃
Strong acidic cation exchanger	Sulfonic acid (S) R-CH ₂ -SO ₃ ⁻
Weak basic anion exchanger	Diethylamine (D) R-CH ₂ -N(C ₂ H ₅) ₂



	Lab IEX 15	Lab IEX 75	Lab IEX 100
Membrane Area [cm ²]	15	75	100
Number of layers	3	15	5
Bed height [mm]	0.8	4.0	14
Membrane volume [mL]	0.41	2.1	2.8
Membrane diameter [mm]	25	25	50
Typical dynamic binding capacity 10% for Q [mg/unit]	12	60	80
Typical dynamic binding capacity 10% for S [mg/unit]	10.5	52.5	70
Typical dynamic binding capacity 10% for D [mg/unit]	-	60	-
Recommended flow rate [mL/min]	2 - 12	10 - 63	14 - 84
Recommended flow rate [membrane volume/min]	5 - 30	5 - 30	5 - 30
Ligand density [µeq/cm ²]	2 - 5 (Q, S), 2 - 4 (D)	2 - 5 (Q, S), 2 - 4 (D)	2 - 5 (Q, S), 2 - 4 (D)
Maximum pressure at 20°C	6 bar 0.6 MPa 87 psi	6 bar 0.6 MPa 87 psi	6 bar 0.6 MPa 87 psi
pH stability	Q	S	D
Short term	2 - 14	3 - 14	2 - 14
Long term	2 - 12	4 - 13	4 - 13

* Sartorius Application note: 1000 cycles constant binding capacity, Order No.: 85034-535-70

** Sartorius Data sheet: Sartobind® Q and S, 4 and 8 mm bed height, Order No.: 85034-535-76

Dimensions and Connections

	Lab IEX 15	Lab IEX 75	Lab IEX 100
Dimensions (height × diameter) [mm]	25 × 36	28 × 36	31 × 66
Frontal surface area [cm ²]	5	5	20
Connector inlet	Luer female	Luer female	Luer female
Connector outlet	Luer male	Luer male	Luer male
Approximate weight [g]	9	10	35

Ordering Information

Sartobind® Lab IEX units (reusable)

Order number	Description	Quantity
93IEXQ42GB-12--A	Sartobind® Lab Q15, Luer female and male connectors	4
93IEXS42GB-12--A	Sartobind® Lab S15 Luer female and male connectors	4
93IEXQ42DB-12--V	Sartobind® Lab Q75, Luer female and male connectors	2
93IEXS42DB-12--V	Sartobind® Lab S75, Luer female and male connectors	2
93IEXD42DB-12--V	Sartobind® Lab D75, Luer female and male connectors	2
93IEXQ42BC-12	Sartobind® Lab Q100, Luer female and male connectors	1
93IEXS42BC-12	Sartobind® Lab S100, Luer female and male connectors	1

Each package of Lab IEX 15, 75 and 100 contains 1 × Luer male and 1 × Luer female adapters to UNF 10-32, PEEK, for operation via an FPLC system.

Accessories

Order number	Description	Quantity
1ZA---0004	Luer male adapter to UNF 10-32 female, PEEK	1
1ZA---0005	Luer female adapter to UNF 10-32 female, PEEK	1
17002---140	2 × M6 female to female Luer and 2 × M6 female to male Luer adapters, black Tefzel	1

Related Products

96-Well Plates and Accessories

Order number	Description	Quantity
99IEXQ42GC-----V	Sartobind® Q 96-well plate, 2 units	2 (24 × 8-strips)
99IEXQ42GC-----D	Sartobind® Q 96-well plate, 10 units	10 (120 × 8-strips)
99STPA42GC-----V	Sartobind STIC® PA 96-well plate, 2 units	2 (24 × 8-strips)
99STPA42GC-----D	Sartobind STIC® PA 96-well plate, 10 units	10 (120 × 8-strips)
99IEXS42GC-----V	Sartobind® S 96-well plate, 2 units	2 (24 × 8-strips)
99IEXS42GC-----D	Sartobind® S 96-well plate, 10 units	10 (120 × 8-strips)
99HICP42GC-----V	Sartobind® Phenyl 96-well plate, 2 units	2 (24 × 8-strips)
99HICP42GC-----D	Sartobind® Phenyl 96-well plate, 10 units	10 (120 × 8-strips)
VW96VAC01	Vac96 vacuum manifold	1
VW96VAA02	Vac96 liquid trap and reservoir	1
VW96VAA04	96 deep well collection plate 2 mL (square wells)	25
VW96VAA05	Replacement seal for Vac96 vacuum manifold	25
16612	Vacuum pump, 98%, 220 V, 50 Hz	1
16615	Vacuum pump, 98%, 110 V, 60 Hz	1

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