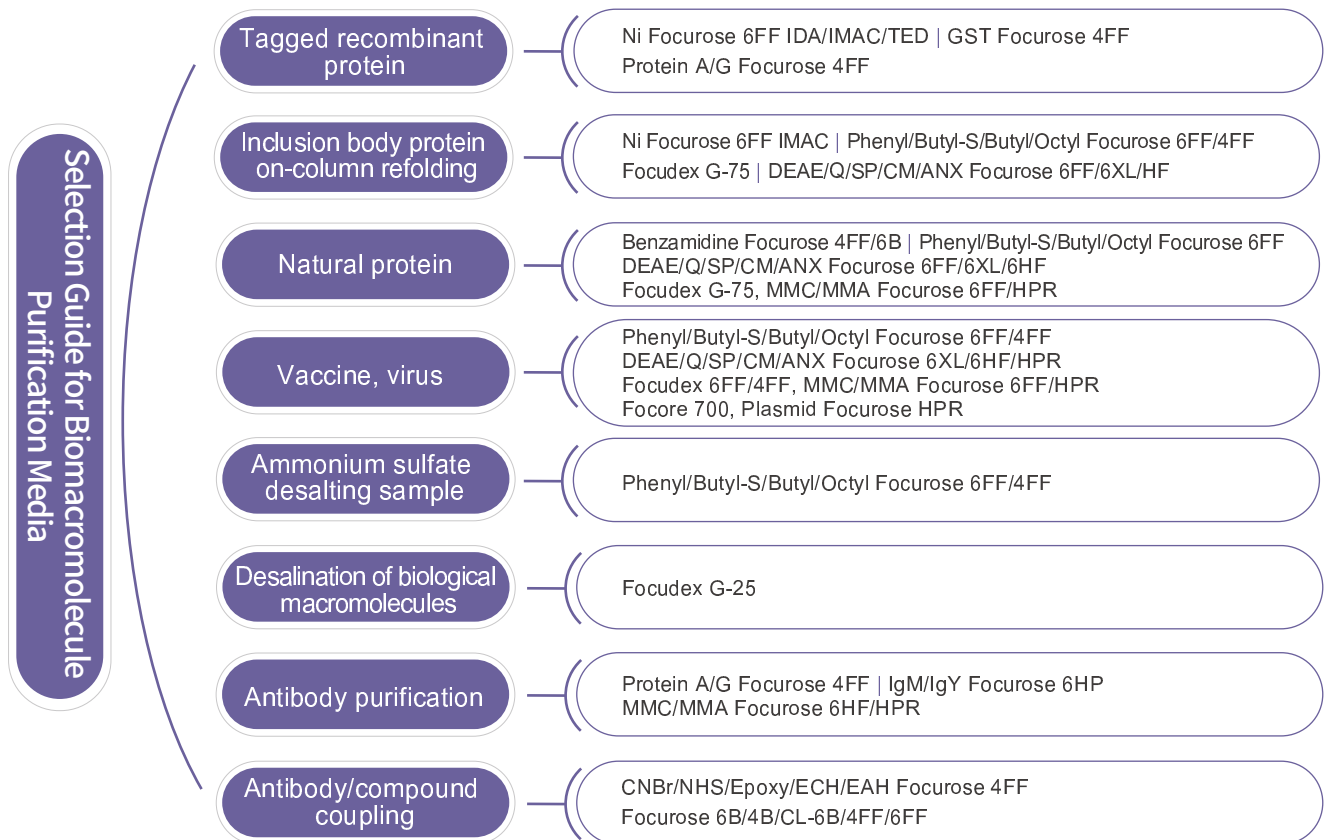
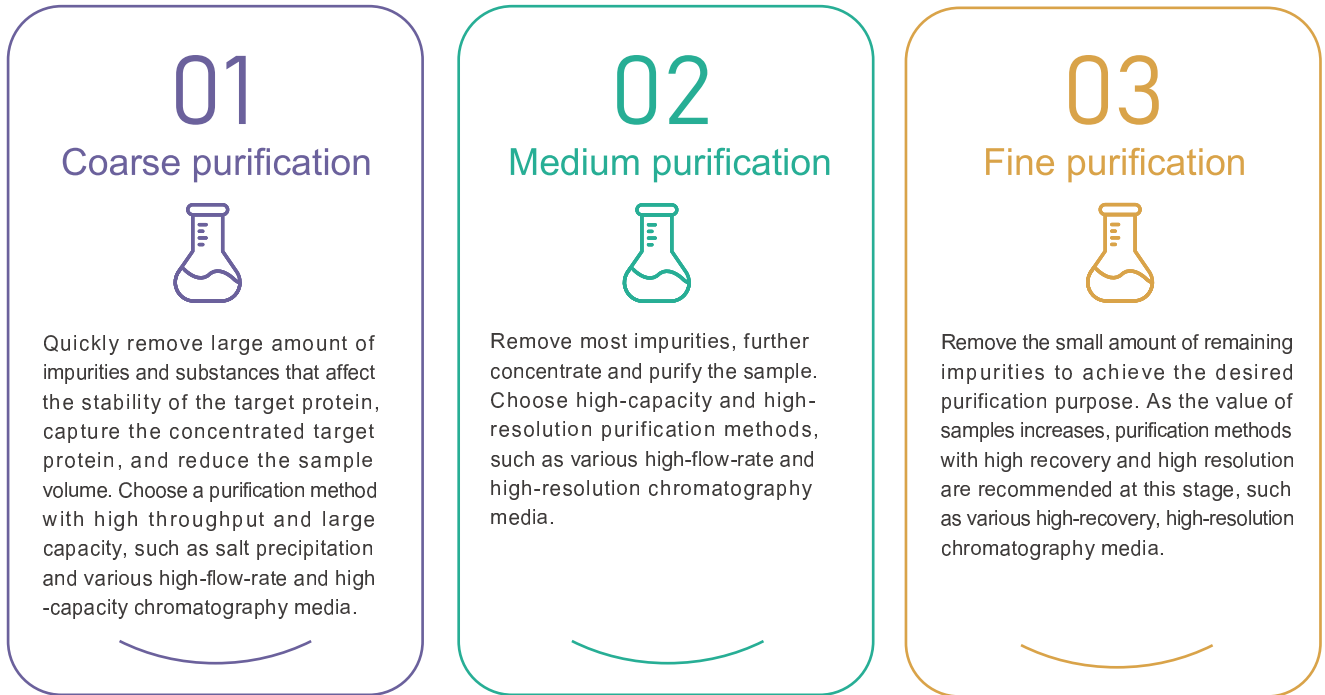




Chromatography Media

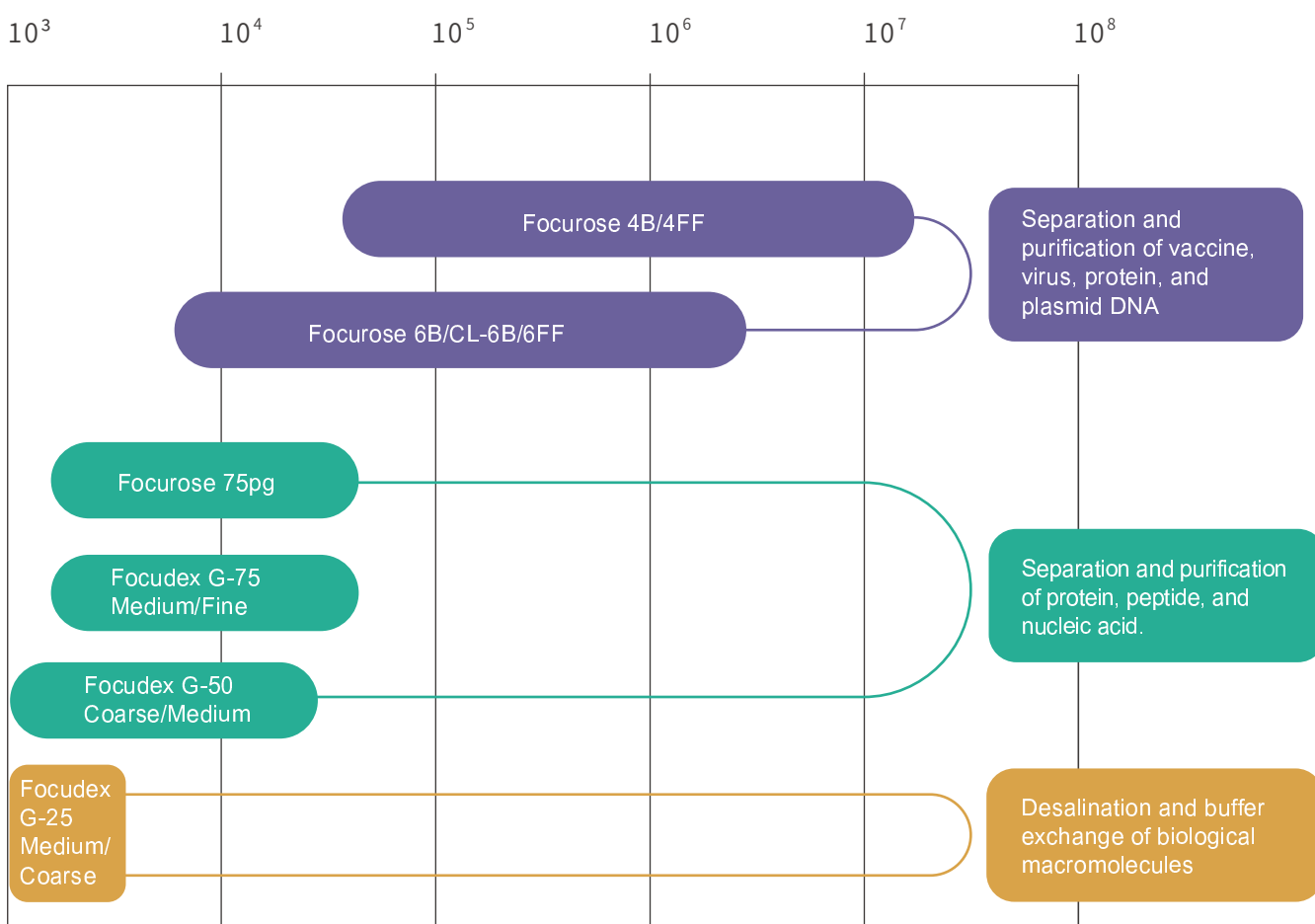
Biomacromolecule Purification Media



★ ★ ★ Linear flow rate (cm/h)=flow rate (ml/min) × 60/square of column radius (cm) × π

Gel filtration chromatography media

Selection Guide for Gel Filtration Chromatography Media



Gel filtration media fractionation range (Globulin Da)

Application Strategy of Gel Filtration Chromatography Media

- Gel filtration chromatography is often used in the fine purification stage with less impurities;
- Gel filtration chromatography is used for the purification of less sample volume;
- During group separation (such as desalination), it can also be used in the crude purification stage;
- Only one buffer is needed for gel filtration chromatography.
- The type of buffer hardly affects the separation effect. The addition of 150 mM sodium chloride to the buffer can effectively reduce non-specific adsorption.

Product List of Gel Filtration Chromatography Media

Agarose gel filter media

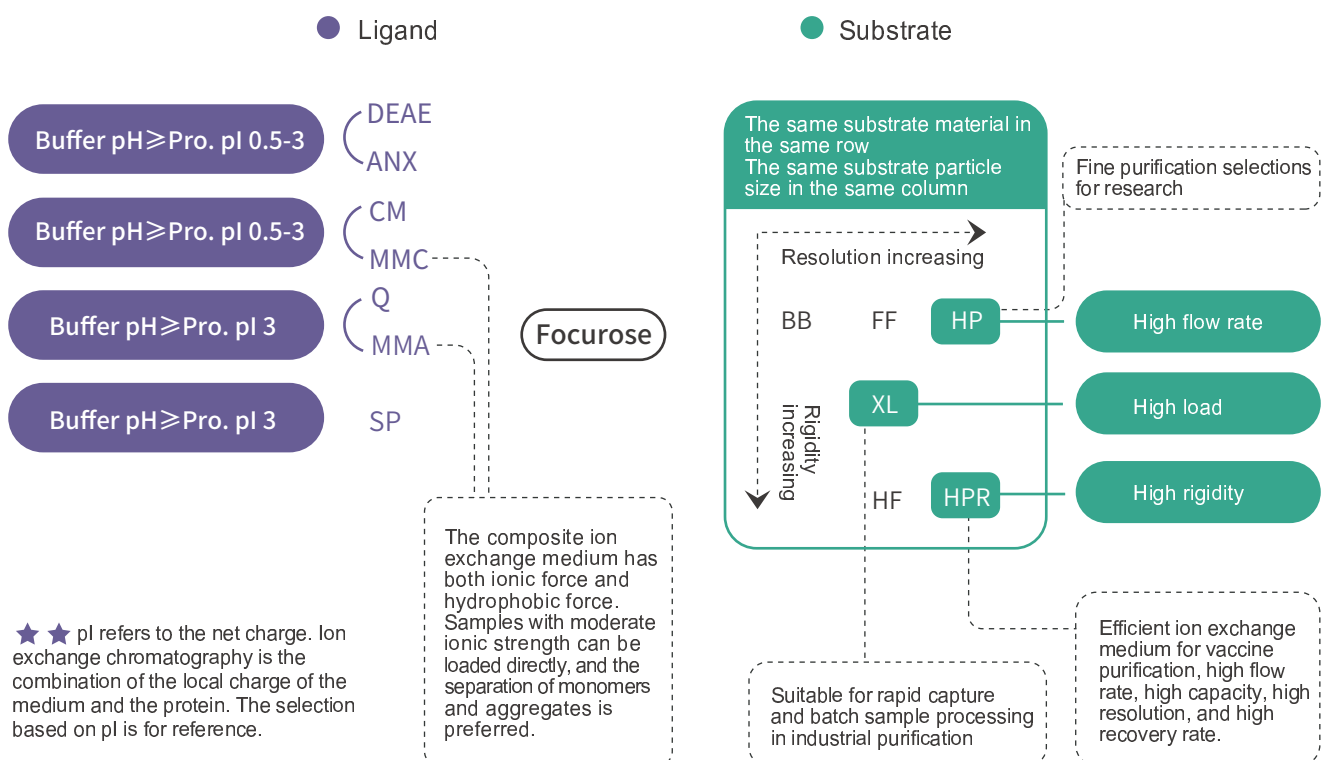
Product Name	Separation range (Globulin)	Particle size range	Average particle size	Withstand stress	Maximum flow rate	PH stability	Application
Focurose 4FF	$7 \times 10^4 - 2 \times 10^7$	45-165 μ m	90 μ m	≤ 0.3 Mpa	250cm/h	2-12 (Long term) 2-14 (Short term)	Separation of vaccines, viruses, etc.
Focurose CL-6B	$1 \times 10^4 - 4 \times 10^4$			≤ 0.05 Mpa	30cm/h	3-12 (Long term) 2-14 (Short term)	Determination of biological macromolecular weight such as protein and polysaccharide
Focurose 6FF	$1 \times 10^4 - 4 \times 10^4$			≤ 0.3 Mpa	300cm/h	3-12 (Long term) 2-14 (Short term)	Plasmid DNA, virus, vaccine purification

Sephadex Gel Filtration Media

Product Name	Separation range (Globulin)	Particle size of dry powder	Swelling degree	Maximum flow rate	PH stability	Application
Focudex G-25 Medium	1x10 ³ -5x10 ³	45-165μm	4-6g/ml	150cm/h	2-13	Mainly used for desalting and buffer exchange of biological macromolecules
Focudex G-50 Medium	1x10 ³ -3x10 ⁴		9-11g/ml	80cm/h	2-13	Gel filtration chromatography separation and purification of peptides and proteins
Focudex G-75 Medium	3x10 ³ -8x10 ⁴		12-15g/ml	80cm/h	2-13	

Ion Exchange Chromatography Media

Ion Exchange Media Selection Guide



Ion Exchange Chromatography Media Product List

High flow rate agarose ion exchange chromatography medium

Product Name	Ion Load	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
SP Focouse 6FF	180-250 H ⁺ μmol/L	45-165μm	700cm/h	≤0.3Mpa	4-14 (Short term) 4-13 (Long term)	Rapid capture and purification of positively charged biological macromolecules
CM Focouse 6FF	90-130 H ⁺ μmol/L		700cm/h		2-14 (Short term) 4-13 (Long term)	
Q Focouse 6FF	180-250 Cl ⁻ μmol/L		700cm/h		2-14 (Short term) 2-12 (Long term)	Rapid capture and purification of negatively charged biological macromolecules
DEAE Focouse 6FF	110-160 Cl ⁻ μmol/L		700cm/h		1-14 (Short term) 2-13 (Long term)	

In addition to the particle size of 45-165μm in the above table, high-flow ion exchange chromatography media with particle size of 25-45μm (fine purification) and 100-300μm (rapid capture) are also available.

Super high-capacity agarose substrate ion exchange medium

Product Name	Ion Load	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
SP Focurose 6XL	180-250 H ⁺ μmol/L	45-165 μm	700cm/h	≤0.3Mpa	3-14(Short term) 4-13(Long term)	Rapid capture and purification of proteins, nucleic acids, polysaccharides, vaccines, and viruses.
CM Focurose 6XL	90-130 H ⁺ μmol/L				2-14(Short term) 4-13(Long term)	
Q Focurose 6XL	180-250 Cl ⁻ μmol/L				2-14(Short term) 2-12(Long term)	
DEAE Focurose 6XL	210-310 Cl ⁻ μmol/L				1-14(Short term) 2-13(Long term)	

In addition to the particle size of 45-165 μm in the above table, ultra-high-capacity ion exchange chromatography media with particle size of 25-45 μm (fine purification) and 100-300 μm (rapid capture) are also available.

High rigidity agarose substrate ion exchange medium

Product Name	Ion Load	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
SP Focurose 6HF	140-200 H ⁺ μmol/L	45-165 μm	1000cm/h	≤0.5Mpa	3-14(Short term) 4-12(Long term)	High flow rate and high capacity; suitable for large scale production
CM Focurose 6HF	90-120 H ⁺ μmol/L				3-14(Short term) 4-12(Long term)	
Q Focurose 6HF	160-220 Cl ⁻ μmol/L				2-14(Short term) 2-12(Long term)	High flow rate and high capacity; suitable for large scale production
DEAE Focurose 6HF	290-350 Cl ⁻ μmol/L				2-14(Short term) 2-12(Long term)	

In addition to the 45-165 μm particle size in the above table, we also provide 25-45 μm high rigidity agarose ion exchange media, and complex ion exchange media with MMA/MMC ligands that have both hydrophobic and ion exchange functions.

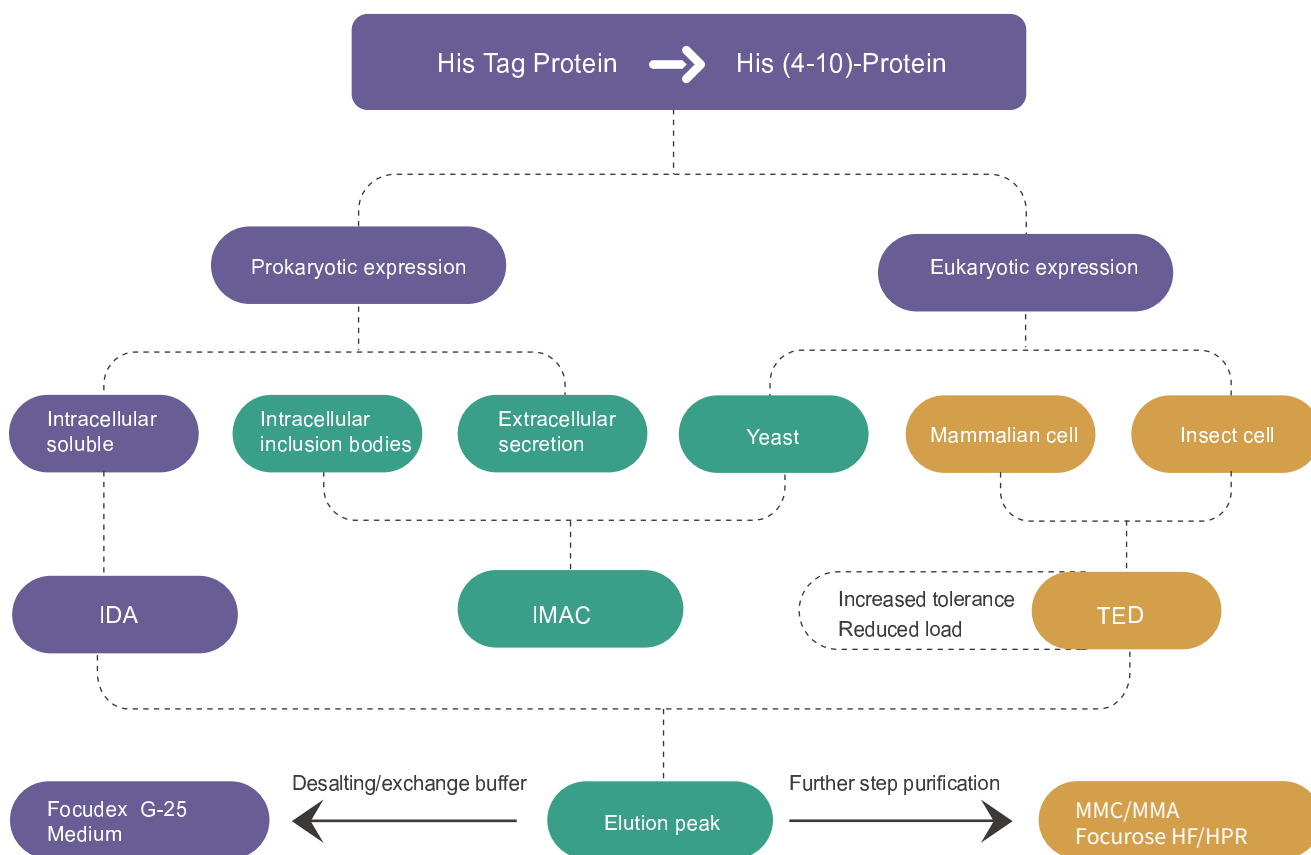
Macroporous high rigidity agarose substrate ion exchange medium

Product Name	Ion Load	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
SP Focurose HPL	100-130 H ⁺ μmol/L	45-165 μm	300cm/h	≤0.3Mpa	4-13(Short term) 2-13(Long term)	Suitable for separation and purification of biological macromolecules, such as PEG-proteins, VLPs and viruses, etc.
CM Focurose HPL	60-100 H ⁺ μmol/L				2-14(Short term) 4-10(Long term)	
Q Focurose HPL	60-120 Cl ⁻ μmol/L				1-12(Short term) 2-13(Long term)	
DEAE Focurose HPL	70-110 Cl ⁻ μmol/L				1-14(Short term) 3-10(Long term)	

In addition to the 45-165 μm particle size in the above table, we also provide 25-45 μm high rigidity agarose ion exchange media, and complex ion exchange media with MMA/MMC ligands that have both hydrophobic and ion exchange functions.

Affinity Chromatography Media

Selection Guide for His Tag Protein Purification Affinity Media



Chelating ion (binding capacity to His Tag) $\text{Cu}^{2+} > \text{Ni}^{2+} > \text{Zn}^{2+} > \text{Co}^{2+}$



Affinity chromatography media product list

His tag protein purification affinity chromatography media (divided into IDA, IMAC, and TED according to different chelating methods)

Product Name	Protein/Chelating Amount 1ml Medium	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
Ni Focurose 6FF(IDA)	45mg His tag protein	45-165 μm	600cm/h	$\leq 0.3\text{Mpa}$	2-14(Short term) 3-12(Long term)	His tag protein purification
Ni Focurose 6FF(IMAC)	40mg His tag protein		600cm/h		2-14(Short term) 3-12(Long term)	Large-scale His tag protein purification
Ni Focurose 6FF(TED)	20mg His tag protein		600cm/h		2-14(Short term) 3-12(Long term)	Tolerance to 100mMEDTA and 10mM DTT, without nickel removal, directly wash thoroughly with 1M NaOH.

In addition to the above products, His tag protein purification media for other substrates such as 4FF can be customized.

GST tag protein purification affinity medium

Product Name	Protein/Chelating Amount 1ml Medium	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
GST Focurose 4FF	15mg GST tag protein	45-165µm	450cm/h	≤0.3Mpa	3-12(Long term)	GST tag protein purification

In addition to the above products, GST tag protein purification media for other substrates other than 4FF can be customized.

Affinity chromatography media for antibody purification

Product Name	Functional capacity(mg/ml)	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
Protein A Focurose 4FF	20lgG	45-165µm	300cm/h	≤0.3Mpa	2-10(Short term) 3-9(Long term)	Purification of antibodies, immunoglobulins and FC fusion proteins
Protein G Focurose 4FF	25lgG		300cm/h		2-10(Short term) 3-9(Long term)	

Affinity media for serine protease purification

Product Name	Functional capacity(mg/ml)	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
Benzamidine Focurose 6B	13 mg Trypsinogen	45-165µm	75cm/h	≤0.02Mpa	1-9(Short term) 2-8(Long term)	Separation and purification of trypsin, chymotrypsin, elastase, etc.
Benzamidine Focurose 4FF(HS)	35 mg Trypsinogen		300cm/h	≤0.3Mpa		

Virus, virus/microbial antigen purification affinity medium

Product Name	Lysozyme load (mg/ml)	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
PS Focurose HPL	≥3 mg/ml Trypsinogen	45-165µm	300 (16mmX300mm)	≤0.3Mpa	5-12(Short term) 5-12(Long term)	20% ethanol 4-30°C

PS Focurose HPL is a specific affinity filler, suitable for affinity chromatography purification of viruses, virus-like particles, and certain specific antigens and proteins.

Affinity media for plasmid purification

Product Name	Combined load	Particle size range	Maximum flow rate	Withstand stress	PH stability	Storage solution/ temperature
Plasmid Focurose HPR	≥2mg(pDNA)/ ml(medium)	25-45µm	≥220cm/h	≤0.5Mpa	3-11(Long term) 2-13(Short term)	20% ethanol 4-8°C

Hydrophobic chromatography media

Hydrophobic chromatography media product list

Product Name	Ligand concentration μ mol/ml	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
Phenyl Focurose 6FF(HS)	40	45-165 μ m	400cm/h	≤ 0.3 Mpa	2-14(Short term) 3-13(Long term)	Separation and purification of various proteins, suitable for the purification of substances containing aromatic groups, and further purification after desalting.
Butyl Focurose 4FF	40		400cm/h		2-14(Short term) 3-13(Long term)	
Octyl Focurose 4FF	5		250cm/h		2-14(Short term) 3-13(Long term)	

In addition to the above products, we can also provide hydrophobic chromatography media with a particle size of 25-45 μ m and a ligand concentration of 10/20/25/50 μ mol/ml.

Multi-mode chromatography media product list

Product Name	Ligand concentration μ mol/ml	Particle size range	Maximum flow rate	Withstand stress	PH stability	Application
Focore 700	40-85	45-165 μ m	300-700 cm/h	—	2-14(Short term) 3-13(Long term)	Used for flow-through purification of viruses, virus-like particles, virus vectors, etc.
MMA Focurose HF	90-140			≤ 0.5 Mpa	2-14(Short term) 4-12(Long term)	Mainly used in the medium purification and fine purification of monoclonal antibodies, and can also be used in the fine purification of other biomolecules
MMA Focurose FF	130-200			≤ 0.3 Mpa	2-14(Short term) 4-12(Long term)	
MMC Focurose HF	100-200			≤ 0.5 Mpa	2-14(Short term) 3-12(Long term)	Suitable for moderate purification and fine purification of all charged biomolecules such as proteins, peptides, nucleic acids, etc.
MMC Focurose FF	80-150			≤ 0.3 Mpa	2-14(Short term) 3-12(Long term)	



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