

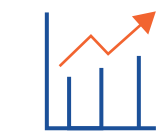
Product Brochure

Professional Manufacturer
of Chromatography Resins



Professional Manufacturer of Chromatography Resins

Company Profile



3000(L)
Maximum
Single Batch



31(PEC)
Patents



2500(CNT)
Partner
Biopharmaceutical
Enterprises



18(YRS)
Development
Experience

Changzhou Smart-Lifesciences Biotechnology Co., Ltd., established in 2013 and affiliated with Changzhou Boyi Bio Group, is a high-tech enterprise focusing on the development and production of high-quality biological purification products. Our main offerings include chromatography resins, automated purification instruments, and supporting consumables.

Currently, the company covers an area of approximately 10,000 square meters in Changzhou, with a new plant under construction that spans about 45 acres. Adhering to the "Quality First" principle, the company has passed ISO9001 quality management system certification. Its mature production processes and standardized quality inspection systems ensure data reliability and stable quality, providing a guarantee for the safety and stability of product applications, and meeting the batch and quality requirements of industrial customers. The company's advanced technology also enables us to provide customers with professional technical support and process development services.

Our products have been widely used in the following fields:



Antibody Drugs



Polypeptide



Recombinant Protein



Gene Therapy



Blood Products



Vaccine



API

Quality System Certificate



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Antibody Affinity Chromatography

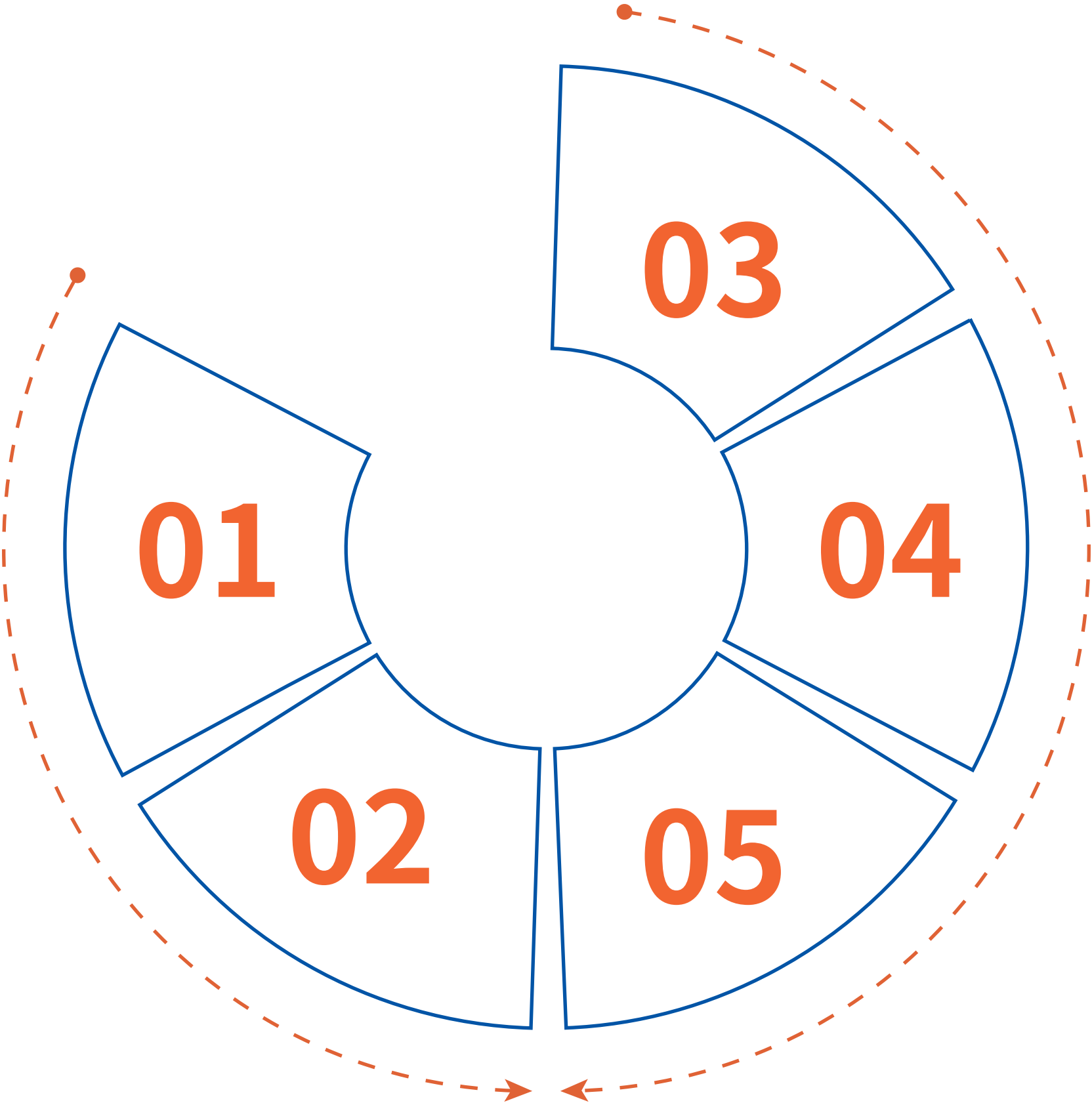
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Size Exclusion Chromatography

- Smartarose
- Smartdex

01

Size Exclusion Chromatography

Size exclusion chromatography (SEC), also known as gel filtration or molecular sieve chromatography, plays a vital role in separating molecules based on size as they pass through an SEC-packed column. Separation is mainly based on the size and shape of the samples, with smaller molecules being more delayed than larger ones.

Smartarose

Smartarose is a gel filtration medium based on agarose beads, providing a broad range of separation capabilities. It consists of a porous matrix of spherical particles with excellent chemical stability and low non-specificity. By controlling the agarose concentration and degree of cross-linking, Smartarose Beads with different pore sizes can be prepared, enabling the effective separation of proteins with different molecular weights.

Characteristics of Smartarose Beads

Products	Separation Range(Da) (globulin)	Recommended Flow rate (cm/h)	Working pH
Smartarose 4B	70,000-20×10 ⁶	<30	4-9
Smartarose 6B	10,000-4×10 ⁶	<30	4-9
Smartarose CL-4B	70,000-20×10 ⁶	<50	3-13
Smartarose CL-6B	10,000-4×10 ⁶	<80	3-13
Smartarose 4FF	40,000-20×10 ⁶	150-250	2-12
Smartarose 6FF	10,000-4×10 ⁶	200-400	2-12

Smartdex

Smartdex is a size-exclusion chromatography medium based on dextran. Smartdex beads feature a three-dimensional network structure formed by cross-linked dextran and a cross-linking agent through ether bonds, resulting in a resin with excellent selectivity and high resolution. Beads with a higher degree of cross-linking have smaller pore sizes, allowing smaller molecules to enter the bead interiors, while larger molecules pass directly through the bead exterior.

Characteristics of Smartdex Beads

Products	Separation Range(Da) (globulin)	Separation Range(Da) (linear dextran)	Swelling Volume(ml/g)	Maximum Flow Rate	Working pH
Smartdex G-10	700	700	2-3	150	2-13
Smartdex G-15	1,500	1,500	2.5-3.5	150	2-13
Smartdex G-25	1,000-5,000	100-5,000	4-6	100	2-13
Smartdex G-50	1,000-30,000	500-10,000	9-11	100	2-13
Smartdex G-75	3,000-70,000	1,000-50,000	12-15	50	2-10
Smartdex G-100	4,000-150,000	1,000-100,000	15-20	50	2-10

Desalting Column

Smartdex G-25 is effective for separating substances with molecular weights below 5000 Da, making it ideal for the rapid removal of small molecular impurities, residues, by-products, and for buffer exchange. Various desalting column formats are available to suit experimental needs, including Prepacked Desalting columns, SpinDesalt columns, and PreCap Desalting columns.

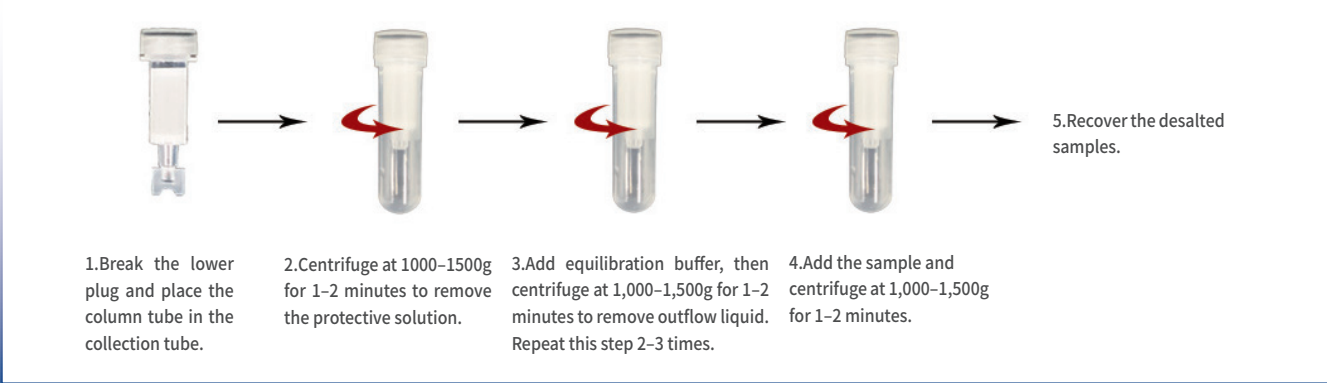


Fig. 1-1 Workflow of the Centrifugal Desalting Column.

Products								
	0.5ml SpinDesalt Column	3ml SpinDesalt Column	10ml SpinDesalt Column	P96 SpinDesalt Column	8.3ml Prepacked Desalting Column	1ml PreCap Desalting	5ml PreCap Desalting	20ml HiPur Desalting
Required Equipment	Centrifuge				Gravity column rack	Protein purifier		
Loading volume	100-200 µl	350 µl-750 µl	1-2.5 ml	60-180 µl	1.0-2.5 ml	100 µl	500 µl	2 ml
Time	5-10 min	10-15 min			10-20 min	10-30 min		
Volume change	Unchanged				Dilute 1.5-3 times	Dilute 1.5-2 times		
Application	Fast medesalting of small volume		Fast desalting of small volume	High throughput fast desalting of small volume	Fast desalting of middle volume	Fast desalting of small volume		Fast desalting of middle volume

Fig. 1-2 Comparison of different protein desalting methods.

Product Information

Products	Cat.No.	Size	Characteristics and Applications
Smartdex G-10	SEC014S2	25g	Separation and purification of polypeptide and small molecule samples.
	SEC0141	100g	
	SEC0145	500g	
	SEC0146	1kg	
	SEC0147	10kg	
Smartdex G-15	SEC013S2	25g	
	SEC0131	100g	
	SEC0135	500g	
	SEC0136	1kg	
	SEC0137	10kg	

Product Information

Products	Cat.No.	Size	Characteristics and Applications
Smartdex G-25(Coarse)	SEC001S2	25g	Smartdex G-25 is a gel filtration medium based on cross-linked dextran. Coarse particles provide a higher flow rate, while fine particles offer greater resolution. They are mainly used for separating substances of different molecular weights, such as in desalting and buffer exchange applications.
	SEC0011	100g	
	SEC0015	500g	
	SEC0016	1kg	
	SEC0017	10kg	
Smartdex G-25(Medium)	SEC003S2	25g	
	SEC0031	100g	
	SEC0035	500g	
	SEC0036	1kg	
	SEC0037	10kg	
Smartdex G-25(Fine)	SEC005S2	25g	
	SEC0051	100g	
	SEC0055	500g	
	SEC0056	1kg	
	SEC0057	10kg	
PreCap Desalting (Smartdex G-25)	SEC018C11	1×1ml	They are pre-packed columns and mainly used for separating substances of different molecular weights, such as in desalting and buffer exchange applications.
	SEC018C51	5×1ml	
	SEC018C15	1×5ml	
	SEC018C55	5×5ml	
	SEC018CS	3×1ml+1×5ml	
HiSelect Desalting	SEC003C47	1pcs, 4.7ml	They are pre-packed columns that use gravity for desalting.
HiPur Desalting	SEC003C20	1pcs, 20ml	
Prepacked Desalting Column	SEC003C1	1pcs, 8.3ml	
	SEC003C2	5pcs, 8.3ml	They are pre-packed columns that use centrifuge for desalting.
	SEC003C3	20pcs, 8.3ml	
SpinDesalt Column	SEC02303	3T	
	SEC02301	50T	
SpinDesalt Column-3	SEC04601	1pcs	
	SEC04602	5pcs	
	SEC04603	20pcs	
SpinDesalt Column-10	SEC03201	1pcs	
	SEC03202	5pcs	
	SEC03203	20pcs	
SpinDesalt Column-P96	SEC04701	1 plate	
	SEC04702	5 plates	
Smartdex G-50(Medium)	SEC017S2	25g	They are mainly used for separating substances of different molecular weights, such as polypeptides, enzymes, and proteins.
	SEC0171	100g	
	SEC0175	500g	
	SEC0176	1kg	
	SEC0177	10kg	
Smartdex G-50(Fine)	SEC021S2	25g	
	SEC02111	100g	
	SEC02112	500g	
	SEC02113	1kg	
	SEC02114	10kg	
Smartdex G-75	SEC012S2	25g	
	SEC0121	100g	
	SEC0125	500g	
	SEC0126	1kg	
	SEC0127	10kg	

Product Information

Products	Cat.No.	Size	Characteristics and Applications
Smartdex G-100	SEC015S2	25g	Smartdex G-100 is commonly used for purification and separation of proteins and polysaccharides, as well as for molecular weight determination.
	SEC0151	100g	
	SEC0155	500g	
	SEC0156	1Kg	
	SEC0157	10Kg	
Smartdex LH-20	SEC0161	25g	Smartdex LH-20 can be used for separation of organic compounds with different molecular weights.
	SEC0162	100g	
	SEC0163	1Kg	
	SEC0164	10Kg	
Smartarose 4B	SEC0060	25ml	Smartarose 4B and 6B are gel filtration media based on agarose beads. They exhibit low nonspecificity and can be used for the separation of proteins, polysaccharides, and substances with different molecular weights.
	SEC0061	100ml	
	SEC0062	500ml	
	SEC0063	1L	
	SEC0064	10L	
Smartarose 6B	SEC0070	25ml	
	SEC0071	100 ml	
	SEC0072	500 ml	
	SEC0073	1L	
	SEC0074	10L	
Smartarose CL-4B	SEC0080	25ml	Smartarose CL-4B and CL-6B are cross-linked derivatives of Smartarose 4B and 6B, offering greater chemical and physical stability than the original products series. These CL variants can withstand certain concentrations of organic solvents, and they can be cleaned in place (CIP) with sodium hydroxide or sterilized. They are commonly used for the separation of large proteins, peptides, and polysaccharides, as well as for molecules that cannot be solubilized or agglomerated in aqueous solutions, and for molecular weight determination.
	SEC0081	100ml	
	SEC0082	500ml	
	SEC0083	1L	
	SEC0084	10L	
Smartarose CL-6B	SEC0090	25ml	
	SEC0091	100ml	
	SEC0092	500ml	
	SEC0093	1L	
	SEC0094	10L	
Smartarose 4FF	SEC0100	25ml	Smartarose 4FF and 6FF are based on highly cross-linked 4B and 6B agarose beads, exhibiting excellent physical and chromatographic properties. Due to their adaptability to various production processes and great batch repeatability, Smartarose 4FF and 6FF are widely utilized in industrial production. They are particularly effective for purifying large molecules, such as plasmids, recombinant proteins, and viruses.
	SEC0101	100ml	
	SEC0102	500ml	
	SEC0103	1L	
	SEC0104	10L	
HiSelect Smartarose 4FF	SEC010C47	1pcs, 4.7ml	
HiPur Smartarose 4FF	SEC010C20	1pcs, 20ml	
Smartarose 6FF	SEC0110	25ml	
	SEC0111	100ml	
	SEC0112	500ml	
	SEC0113	1L	
	SEC0114	10L	
HiSelect Smartarose 6FF	SEC011C47	1pcs, 4.7ml	
HiPur Smartarose 6FF	SEC011C20	1pcs, 20ml	

Protein Affinity Chromatography

- Histidine-tagged protein affinity purification resin
- Other metal ion chelating affinity purification resin
- GST fusion protein affinity purification resin
- MBP fusion protein affinity purification resin
- Biotin-tagged protein affinity purification resin
- Strep-tag II fusion protein affinity purification resin
- DYKDDDDK-tagged protein affinity purification resin
- GFP-tagged protein affinity purification resin
- RFP-tagged protein affinity purification resin
- YFP-tagged protein affinity purification resin
- c-Myc-tagged protein affinity purification resin
- HA-tagged protein affinity purification resin
- Protein A fusion protein affinity purification resin

Protein Affinity Chromatography

Histidine-tagged protein affinity purification resin

Immobilized metal ion affinity chromatography (IMAC) is widely used in the purification of proteins and peptides. This technique relies on the specific interaction between transition metal ions and certain amino acid chains, such as histidine, tryptophan, and L-cysteine, that are exposed on the protein surface. IMAC media are particularly effective in separating proteins containing histidine residues. Key features of IMAC include high binding capacity, excellent stability, mild separation conditions, and the ability to quickly and reliably scale up the purification of His-tagged proteins. In recent years, IMAC has gained popularity for purifying histidine-tagged proteins expressed in various systems, including *E. coli*., yeast, insect cells, and mammalian cells.

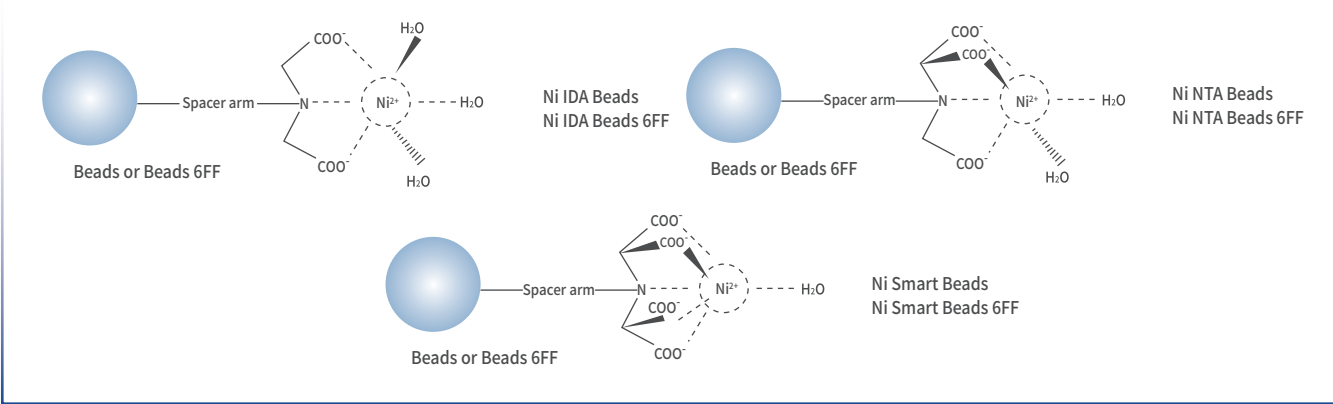


Fig. 2-1 Schematic diagram of ligand of IMAC medium.

Ni IDA Beads and Ni IDA Beads 6FF are coupled with iminodiacetic acid (IDA), forming a stable planar quadrilateral structure after chelating with precharged nickel ions; this structure can be easily disrupted by competitive small molecules. The Ni-IDA structure provides multiple binding sites for histidine-tagged proteins. Ni IDA Beads 6FF offers advantages in terms of higher binding capacity and cost-effectiveness, along with excellent flow properties that facilitate scaling up.

Ni NTA Beads and Ni NTA Beads 6FF utilize nilotriacetic acid (NTA) as the ligand. Nickel ions (Ni²⁺) are chelated to this group, resulting in a stable octahedral structure that protects the nickel ions from competitive small molecule interference. The Ni-NTA structure is compatible with certain concentrations of reducing agents, denaturing agents, detergents, and other additives.

Ni Smart Beads and Ni Smart Beads 6FF are novel immobilized metal ion affinity chromatography (IMAC) media precharged with nickel ions, specifically designed for the capture and purification of histidine-tagged proteins secreted into eukaryotic cell culture supernatants. The robust nickel ion binding provides exceptional resistance to EDTA and reducing agents such as DTT, allowing for the direct loading of large sample volumes without the need to remove agents that typically strip nickel ions from conventional IMAC media. Ni Smart Beads 6FF are stable in all buffers commonly used in IMAC; refer to Table 2-1 for information on reagent tolerance.

Table 2-1 Chemical stability of Ni Smart Beads and Ni Smart Beads 6FF.

Reagent	Tested time
0.01 M HCl, 0.01 M NaOH	One week
10 mM EDTA, 1 M NaOH, 5 mM DTT, 5 mM TCEP, 20 mM Mercaptoethanol, 6M Guanidine	24 hours
500mM imidazole, 100mM EDTA	2 hours
30% Isopropanol	20 min

Ni Smart Beads and Ni Smart Beads 6FF can be directly utilized for the capture and purification of 6×His-tagged proteins expressed by mammalian cells, without the need to change the solution or concentrate the cellular supernatant.

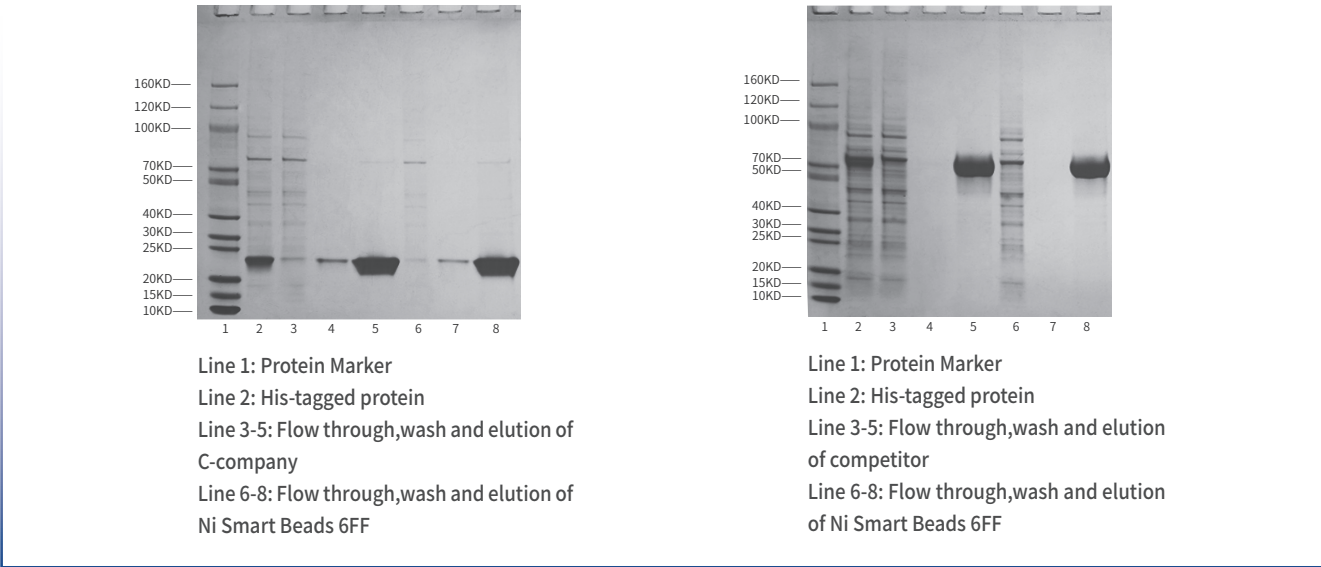


Fig.2-2 Purification of 6×His tagged protein expressed by mammalian cells.

His-tag usually consists of 6-10 consecutive histidine residues. The structure of the tag (including its position, sequence and length) can affect various aspects of protein production, such as expression levels, three-dimensional structure, crystallization, and binding capacity.

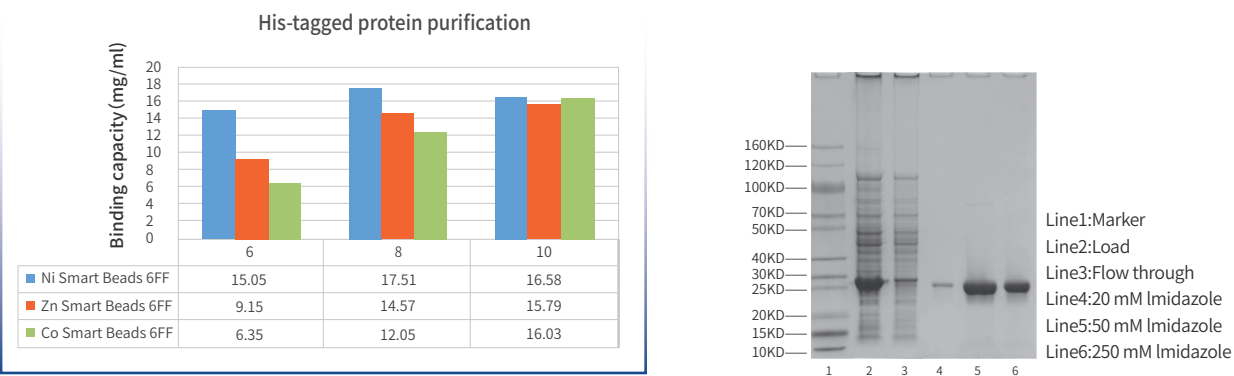


Fig.2-3 Ni Smart Beads 6FF purified different His-tagged proteins.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Ni IDA Beads	SA003005	5ml	>40 mg 6×His-tagged protein	Ni IDA Beads and 6FF are cost-effective products for purifying polyhistidine-tagged proteins and are recommended for the purification of soluble protein extracts.
	SA003025	25ml		
	SA003100	100ml		
	SA003500	500ml		
	SA00301L	1L		
	SA00310L	10L		
Ni IDA Beads 6FF	SA052005	5ml		
	SA052025	25ml		
	SA052100	100ml		
	SA052500	500ml		
	SA05201L	1L		
	SA05210L	10L		
HisCap IDA 6FF	SA052C11	1×1ml		
	SA052C15	1×5ml		
	SA052C51	5×1ml		
	SA052C55	5×5ml		
	SA052CS	3×1ml+1×5ml		
Ni NTA Beads	SA004005	5ml	>40 mg 6×His-tagged protein	Ni NTA Beads can be used in the purification of polyhistidine-tagged inclusion bodies and soluble proteins. It can withstand more severe chemical reagents and has a wider range of applications.
	SA004025	25ml		
	SA004100	100ml		
	SA004500	500ml		
	SA00401L	1L		
Ni NTA Beads Gravity Column	SA00401L	10L		
	SA004GC01	1ml		
	SA004GC05	5ml		
	SA004K03	3T		
	SA004KB03	3T		
Ni NTA Beads 6FF	SA005005	5ml		It is cost-effective products for purifying His-tagged proteins, offering simple operation and high purification efficiency.
	SA005025	25ml		
	SA005100	100ml		
	SA005500	500ml		
	SA00501L	1L		
	SA00510L	10L		
Ni NTA Beads 6FF Gravity Column	SA005GC01	1ml		
	SA005GC05	5ml		
HisCap 6FF	SA005C11	1×1ml		Ni NTA Beads 6FF is compatible with both native and denaturing conditions, making it suitable for purifying polyhistidine-tagged inclusion bodies and soluble proteins. Its high flow properties make it excellent for scaling-up.
	SA005C51	5×1ml		
	SA005C15	1×5ml		
	SA005C55	5×5ml		
	SA005CS	3×1ml+1×5ml		
HiSelect Ni 6FF	SA005C47	1pcs, 4.7ml		
HiPur Ni 6FF	SA005C20	1pcs, 20ml		
Ni NTA Beads HF	SA101005	5 ml	20-30 μmol Ni ²⁺	It can be used in the purification of polyhistidine-tagged inclusion bodies and soluble proteins. Highly rigid agarose microspheres withstand elevated flow rates and deliver enhanced chemical stability.
	SA101025	25 ml		
	SA101100	100 ml		
	SA101500	500 ml		
	SA10101L	1 L		
	SA10110L	10 L		
HisCap NTA Beads HF	SA101C11	1×1 ml		
	SA101C51	5×1 ml		
	SA101C15	1×5 ml		
	SA101C55	5×5 ml		
HiPur Ni HF	SA101C20	20 ml		
HiSelect Ni HF	SA101C47	4.7 ml		

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Ni Smart Beads	SA035005	5ml	>10 mg 6×His-tagged protein	Ni Smart Beads and 6FF offer exceptional resistance to a wide range of chemicals, making them suitable for protein environments with high concentrations of reducing and chelating agents. They are especially effective in purification systems for proteins expressed in eukaryotic systems.
	SA035025	25ml		
	SA035100	100ml		
	SA035500	500ml		
	SA03501L	1L		
	SA03510L	10L		
Ni Smart Beads Gravity Column	SA035GC01	1ml		
	SA035GC05	5ml		
Ni Smart Beads 6FF	SA036005	5ml		
	SA036025	25ml		
	SA036100	100ml		
	SA036500	500ml		
	SA03601L	1L		
	SA03610L	10L		
Ni Smart Beads 6FF Gravity Column	SA036GC01	1ml		
	SA036GC05	5ml		
HisCap Smart 6FF	SA036C11	1×1ml		
	SA036C51	5×1ml		
	SA036C15	1×5ml		
	SA036C55	5×5ml		
	SA036CS	3×1ml+1×5ml		
HiSelect Ni Smart	SA036C47	4.7ml, 1支		
HiPur Ni Smart	SA036C20	20ml, 1支		
Ni Smart Beads HF	SA110005	5 ml	15-25 μmol Ni ²⁺	It offer exceptional resistance to a wide range of chemicals, making them suitable for protein environments with high concentrations of reducing and chelating agents. They are especially effective in purification systems for proteins expressed in eukaryotic systems.Highly rigid agarose microspheres withstand elevated flow rates and deliver enhanced chemical stability.
	SA110025	25 ml		
	SA110100	100 ml		
	SA110500	500 ml		
	SA11001L	1 L		
	SA11010L	10 L		
HisCap Smart Beads HF	SA110C11	1×1 ml		
	SA110C51	5×1 ml		
	SA110C15	1×5 ml		
	SA110C55	5×5 ml		
HiPur Ni Smart HF	SA110C20	20 ml		
HiSelect Ni HF	SA110C47	4.7 ml		

Other metal ion chelating affinity purification resin

Chelating Beads 6FF and IMAC Beads 6FF are highly cross-linked 6% agarose beads functionalized with IDA and NTA ligands, enabling them to chelate various metal ions, such as Cu²⁺, Zn²⁺, Co²⁺, Ni²⁺, and Fe³⁺. When choosing the desired metal ion, it is important to consider the structural requirements for optimal metal chelate-protein binding. The binding affinity to polyhistidine tags generally follows the order: Cu²⁺ > Ni²⁺ > Zn²⁺ > Co²⁺. Typically, Cu²⁺ binds strongly to histidine-tagged proteins and is effective for purifying proteins with weaker interactions, while Co²⁺ provides greater specificity for histidine tags, yielding higher-purity samples.

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Cu IDA Beads	SA041005	5ml	>20 mg 6×His-tagged protein	Cu IDA Beads are beads with an average particle size of 90 μm coupled with IDA ligands. The medium precharged with Cu ²⁺ ions.
	SA041025	25ml		
	SA041100	100ml		
	SA041500	500ml		
	SA04101L	1L		
	SA04110L	10L		
Cu IDA Beads Gravity Column	SA041GC01	1ml		Zn IDA Beads are beads with an average particle size of 90 μm coupled with IDA ligands. The medium precharged with Zn ²⁺ .
	SA041GC05	5ml		
Zn IDA Beads	SA080005	5ml		
	SA080025	25ml		
	SA080100	100ml		
	SA080500	500ml		
	SA08001L	1L		
	SA08010L	10L		

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Co NTA Beads	SA037005	5ml	>20 mg 6×His-tagged protein	Co NTA Beads are beads with an average particle size of 90 μm coupled with NTA ligands. The medium is precharged with Co ²⁺ ions.
	SA037025	25ml		
	SA037100	100ml		
	SA037500	500ml		
	SA03701L	1L		
	SA03710L	10L		
Co NTA Beads Gravity Column	SA037GC01	1ml		
	SA037GC05	5ml		
Co NTA Beads 6FF	SA038005	5ml		Co NTA Beads 6FF is compatible with both native and denaturing conditions, making them suitable for the purification of polyhis-tidine-tagged inclusion bodies as well as soluble proteins. Its high flow properties make it excellent for scaling-up.
	SA038025	25ml		
	SA038100	100ml		
	SA038500	500ml		
	SA03801L	1L		
	SA03810L	10L		
Co NTA Beads 6FF Gravity Column	SA038GC01	1ml		
	SA038GC05	5ml		
HisCap Co 6FF	SA038C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA038C51	5×1ml		
	SA038C15	1×5ml		
	SA038C55	5×5ml		
	SA038CS	3×1ml+1×5ml		
HiSelect Co 6FF	SA038C47	1pcs, 4.7ml	>10 mg 6×His-tagged protein	Co Smart Beads 6FF can be directly applied for the capture and purification of 6×His-tagged proteins expressed in mammalian cells without the need to change the solution or concentrate the cellular supernatant.
HiPur Co 6FF	SA038C20	1pcs, 20ml		
Co Smart Beads 6FF	SA062005	5ml		
	SA062025	25ml		
	SA062500	500ml		
	SA06201L	1L		
	SA06210L	10L		
HiSelect Co Smart	SA062C47	1pcs, 4.7ml	~15 μmol Ni ²⁺	IMAC Beads 6FF is the medium without chelating metal ion and its ligand is NTA. It is compatible with a certain concentration of reducing agents, denaturing agents, detergents and other additives.
HiPur Co Smart	SA062C20	1pcs, 20ml		
IMAC Beads 6FF	SA050005	5ml		
	SA050025	25ml		
	SA050100	100ml		
	SA050500	500ml		
	SA05001L	1L		
Chelating Beads 6FF	SA05010L	10L	>30 μmol Cu ²⁺	Chelating Beads 6FF is the medium without chelating metal ion and its ligand is IDA.
	SA051005	5ml		
	SA051025	25ml		
	SA051100	100ml		
	SA051500	500ml		
	SA05101L	1L		
	SA05110L	10L		

GST fusion protein affinity purification resin

Glutathione Beads and Glutathione Beads 4FF are affinity chromatography media designed for the purification of glutathione S-transferase (GST), glutathione-dependent proteins, and GST fusion proteins expressed in various systems. The reduced glutathione ligand is coupled to agarose beads via a 12-atom linker, which is optimized to achieve a high binding capacity for GST fusion proteins. Glutathione Beads 4FF can be utilized in fast protein liquid chromatography (FPLC) and is easy to pack and use, with high flow properties that facilitate scale-up. The GST Pur Glutathione Kit is designed for the one-step purification of GST fusion proteins and consists of a prepacked column and ready-to-use buffer. This kit eliminates the need for time-consuming buffer preparation, thus promoting rapid and convenient purification of the target protein from complex samples.

GSTPur Glutathione Kit Content

Products	Cat.No.	Size	Quantity
GSTPur Glutathione Column	SA008GC03	3ml	1
GST-tag Lysis/Wash Buffer	SLB015100	100ml	2
GST-tag Elution Buffer	SLB016100	100ml	1

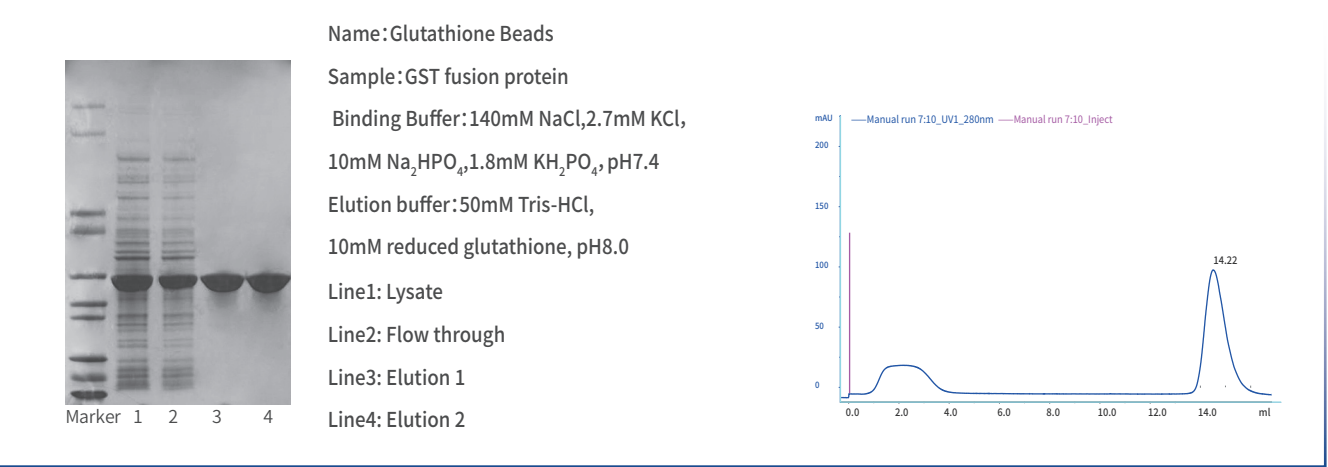


Fig. 2-4 SDS-PAGE analysis of purification of GST fusion protein.

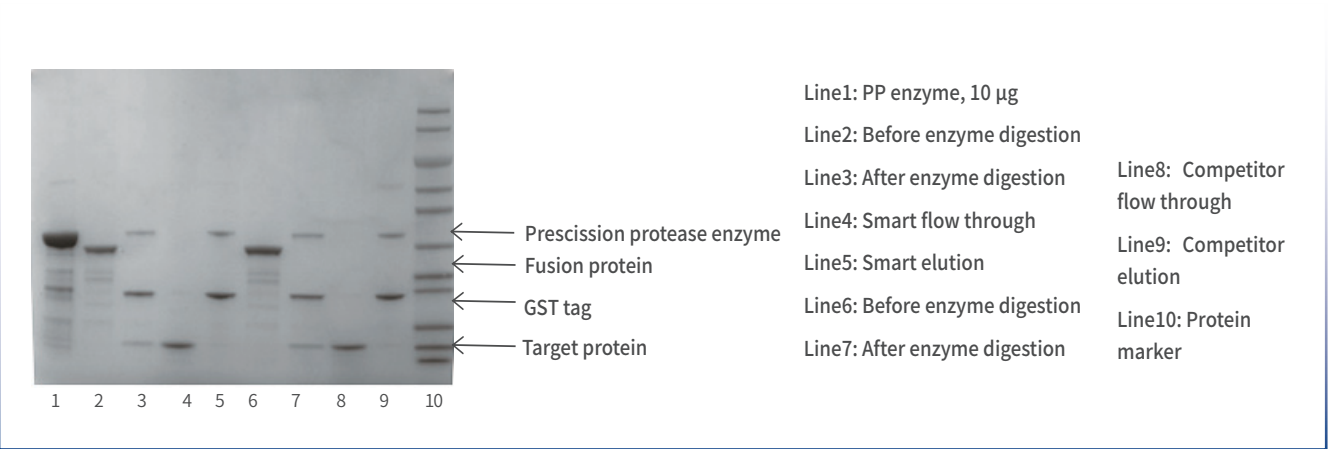


Fig. 2-5 Post-column digestion of GST fusion protein.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Glutathione Beads	SA008005	5ml	>20 mg GST fusion protein (40 kDa)	Glutathione Beads offer a high binding capacity for GST fusion proteins and are recommended for laboratory-scale purification.
	SA008025	25ml		
	SA008100	100ml		
	SA008500	500ml		
	SA00801L	1L		
	SA00810L	10L		
Glutathione Beads Gravity Column	SA008GC01	1ml	>10 mg GST fusion protein(40 kDa)	The GST fusion protein purification kit offers simple operation and high purification efficiency.
	SA008GC05	5ml		
GSTPur Glutathione Kit	SA008K03	3T		
	SA008K05	5T		
GSTPur Glutathione Buffer Kit	SA008KB03	3T		
	SA008KB05	5T		
Glutathione Beads 4FF	SA010005	5ml	>10 mg GST fusion protein(40 kDa)	Glutathione Beads 4FF can be used in purification systems and is easy to pack and use. Its high flow properties make it excellent for scaling-up.
	SA010025	25ml		
	SA010100	100ml		
	SA010500	500ml		
	SA01001L	1L		
	SA01010L	10L		
Glutathione Beads 4FF Gravity Column	SA010GC01	1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA010GC05	5ml		
GSTCap 4FF	SA010C11	1×1ml		
	SA010C51	5×1ml		
	SA010C15	1×5ml		
	SA010C55	5×5ml		
	SA010CS	3×1ml+1×5ml		
HiSelect Glutathione 4FF	SA010C47	1pcs, 4.7ml		
HiPur Glutathione 4FF	SA010C20	1pcs, 20ml		

MBP fusion protein affinity purification resin

Maltose-binding protein (MBP) is a 42 kDa tag that enhances the soluble expression of target proteins, promoting correct folding and increasing expression levels. Dextrin Beads 6FF serves as an affinity chromatography medium for purifying MBP fusion proteins, enabling one-step purification. Bound fusion proteins can be gently eluted with 10 mM maltose to maintain the target protein's activity. MBP can be removed from the fusion protein using site-specific protease.

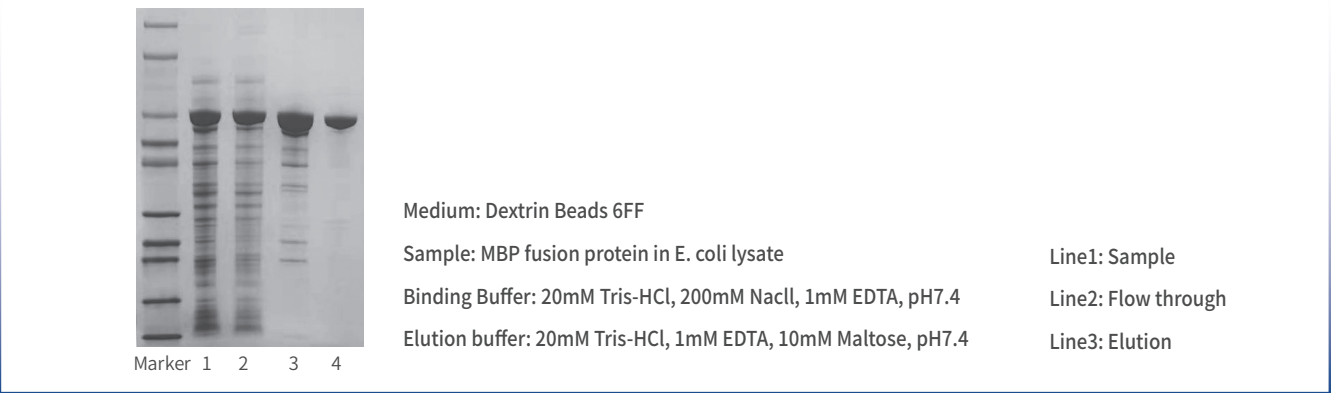


Fig. 2-6 SDS-PAGE analysis of purification of MBP fusion protein.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Dextrin Beads	SA077005	5ml	>20mg MBP fusion protein	Dextrin Beads are suitable for purifying MBP and MBP fusion proteins, offering high purity and strong binding capacity for the target protein.
	SA077025	25ml		
	SA077100	100ml		
	SA077500	500ml		
	SA07701L	1L		
	SA07710L	10L		
Dextrin Beads Gravity Column	SA077GC01	1ml		Its high flow properties make it excellent for scaling-up.
	SA077GC05	5ml		
Dextrin Beads 6FF	SA026005	5ml		
	SA026025	25ml		
	SA026100	100ml		
	SA026500	500ml		
	SA02601L	1L		
Dextrin Beads 6FF Gravity Column	SA02610L	10L		
	SA026GC01	1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems.
	SA026GC05	5ml		
PreCap Dextrin	SA026C11	1×1ml		
	SA026C51	5×1ml		
	SA026C15	1×5ml		
	SA026C55	5×5ml		
HiSelect Dextrin 6FF	SA026CS	3×1ml+1×5ml		
	SA026C47	1pcs, 4.7ml		
HiPur Dextrin 6FF	SA026C20	1pcs, 20ml		

Biotin-tagged protein affinity purification resin

Streptavidin Beads 6FF is an affinity chromatography medium used for biotin-streptavidin interactions. The interaction between streptavidin and biotin is extremely strong, requiring denaturing conditions for elution, which can damage both the ligand and the sample. However, the weaker interaction between 2-iminobiotin and streptavidin allows for elution at pH 4.0, preserving biomolecular activity. The crosslinking of the base matrix has been optimized to ensure high physical and chemical stability, making it suitable for cost-effective, large-scale applications.

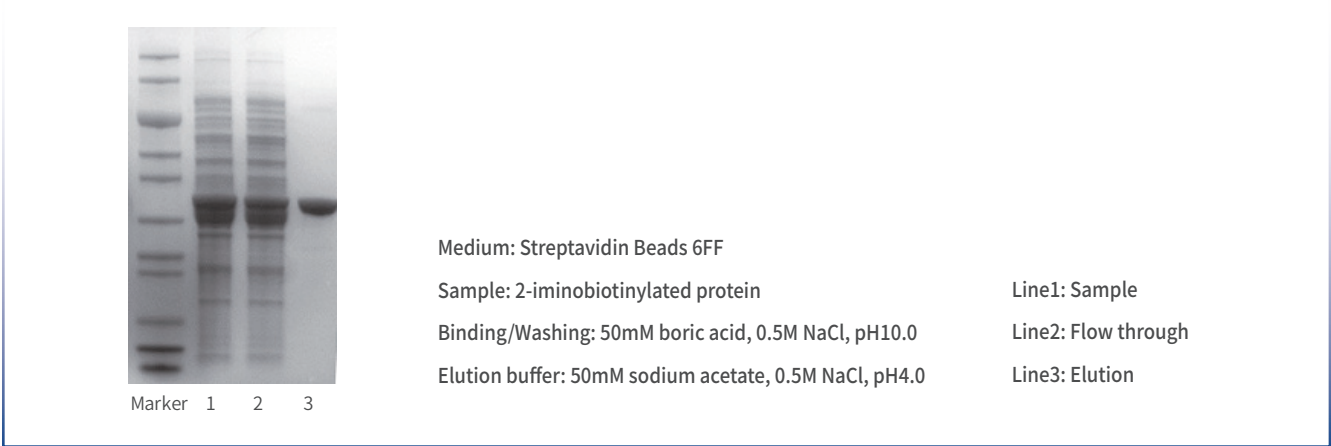


Fig. 2-7 SDS-PAGE analysis of iminobiotinylated protein.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Streptavidin Beads 6FF	SA021005	5ml	>200nmol Biotin	Streptavidin Beads 6FF can be used for the immobilization or detection of biotinylated nucleotides, peptides, proteins, and cells.
	SA021025	25ml		
	SA021100	100ml		
	SA021500	500ml		
	SA02101L	1L		
	SA02110L	10L		
Streptavidin Beads 6FF Gravity Column	SA021GC01	1ml		PreCap Streptavidin columns have the standard interface and can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA021GC05	5ml		
PreCap Streptavidin	SA021C11	1×1ml		
	SA021C51	5×1ml		
	SA021C15	1×5ml		
	SA021C55	5×5ml		
	SA021CS	3×1ml+1×5ml		
HiSelect Streptavidin 6FF	SA021C47	1pcs, 4.7ml		
HiPur Streptavidin 6FF	SA021C20	1pcs, 20ml		

Strep-tag II fusion protein affinity purification resin

Streptavidin ST Beads 4FF is a chromatography medium designed for one-step purification of Strep-tag II fusion proteins from various expression systems. The Strep-tag II is an eight-amino acid peptide (Trp-Ser-His-Pro-Gln-Phe-Glu-Lys) , which don't need to be removed due to their minimal effect on fusion proteins. The Streptactin ligand, immobilized on highly cross-linked 4% agarose, is a specially recombinant protein with a binding affinity for Strep-tag II that exceeds that of streptavidin. Purification occurs under physiological conditions, and mild elution preserves the target protein's activity.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Streptavidin ST Beads 4FF	SA053005	5ml	6 mg Strep-tag II fusion protein	Streptactin Beads 4FF is a chromatography medium for one-step purifying Strep-tag II fusion proteins.
	SA053025	25ml		
	SA053100	100ml		
	SA053500	500ml		
	SA05301L	1L		
	SA05310L	10L		
PreCap Streptavidin ST	SA053C11	1×1ml		
	SA053C51	5×1ml		
	SA053C15	1×5ml		
	SA053C55	5×5ml		
HiSelect Streptavidin ST 4FF	SA053CS	3×1ml+1×5ml		
	SA053C47	1pcs, 4.7ml		
HiPur Streptavidin ST 4FF	SA053C20	1pcs, 20ml		
STarm Beads 4FF	SA092005	5ml	4 mg twin Strep-tag II fusion protein	STarm Streptactin Beads 4FF is uniquely designed to purify Strep-tag II or Twin Strep-Tag II tagged proteins. These beads are widely used for high load and gentle regeneration conditions.It can be reused for many times and has stronger tolerance.
	SA092025	25ml		
	SA092100	100ml		
	SA092500	500ml		
	SA09201L	1L		
PreCap STarm	SA09210L	10L		
	SA092C11	1×1ml		
	SA092C51	5×1ml		
	SA092C15	1×5ml		
	SA092C55	5×5ml		
HiSelect STarm 4FF	SA092CS	3×1ml+1×5ml		
	SA092C47	1pcs, 4.7ml		
HiPur STarm 4FF	SA092C20	1pcs, 20ml		

DYKDDDDK-tagged protein affinity purification resin

Anti-DYKDDDDK Affinity Beads is used for the one-step purification of DYKDDDDK (Flag)-tagged proteins expressed in prokaryotic, yeast, or mammalian cells. The Flag sequence consists of eight hydrophilic amino acids and can be removed by enterokinase. The medium is capable of binding the Flag tag at the N-terminal and C-terminal of the fusion protein. The ligand of the medium is an anti-DYKDDDDK antibody that is covalently coupled to 4% agarose beads. Anti-DYKDDDDK Affinity Beads exhibit high specificity for the fusion protein and can be used for both purification and immunoprecipitation (IP) of Flag-tagged proteins.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Anti- DYKDDDDK Affinity Beads	SA042001	1ml	>1mg DYKDDDDK-tagged protein	One step purification and detection of the DYKDDDDK-tagged protein expressed in prokaryotic, yeast or mammalian cells.
	SA042005	5ml		
	SA042025	25ml		
	SA042100	100ml		
	SA042500	500ml		
	SA04201L	1L		
Anti-DYKDDDDK S1 Affinity Beads	SA109001	1ml		It can purify flag-tagged proteins from various sources and is also suitable for immunoprecipitation (IP), co-immunoprecipitation (co-IP), and other applications.
	SA109005	5ml		
	SA109025	25ml		
	SA109100	100ml		
	SA109500	500ml		
	SA10901L	1L		

GFP-tagged protein affinity purification resin

Green fluorescent protein (GFP) and its mutant, enhanced green fluorescent protein (EGFP), are widely used to detect the expression efficiency and distribution of target genes and proteins. Both GFP and GFP-tagged proteins can be detected spontaneously through fluorescence, requiring no special procedures, and are unaffected by other substances. Anti-GFP Affinity Beads 4FF can be used to detect and purify GFP, EGFP, and their fusion proteins without binding to blue fluorescent protein (BFP)-tagged proteins.



Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Anti-GFP Affinity Beads 4FF	SA070001	1ml	>1mg GFP-tagged protein	Anti-GFP Affinity Beads 4FF can be used to detect and purify GFP, EGFP and their fusion protein without binding to BFP fusion protein.
	SA070005	5ml		
	SA070025	25ml		
	SA070100	100ml		
	SA070500	500ml		
	SA07001L	1L		

RFP-tagged protein affinity purification resin

Red fluorescent protein (RFP), a molecular marker isolated from anemones, is commonly used in studies of protein localization, gene expression, and protein interactions. Anti-RFP Affinity Beads 4FF, based on cross-linked agarose beads, can be used for immunoprecipitation, co-immunoprecipitation, and the purification of natural RFP, RFP mutants, and their fusion proteins.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Anti-RFP Affinity Beads 4FF	SA072001	1ml	> 1mg RFP-tagged protein	Anti-RFP Affinity Beads 4FF can be used for detection and purification of RFP and its fusion protein.
	SA072005	5ml		
	SA072025	25ml		
	SA072100	100ml		
	SA072500	500ml		
	SA07201L	1L		

YFP-tagged protein affinity purification resin

Yellow fluorescent protein (YFP) is a genetic variant of green fluorescent protein (GFP). The YFP-tagged protein fluoresces spontaneously, allowing for the localization of the target protein within the cell, and with minimal interference from other substances. This product is applicable for IP, co-IP, and affinity chromatography of natural YFP and its fusion proteins. Additionally, Anti-YFP Affinity Beads 4FF can detect and purify GFP, EGFP, and their fusion proteins, while not binding to BFP or RFP-tagged proteins.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Anti-YFP Affinity Beads 4FF	SA075001	1ml	> 1mg YFP-tagged protein	Anti-YFP Affinity Beads 4FF can be used for immunoprecipitation and affinity chromatography of YFP and its fusion protein.
	SA075005	5ml		
	SA075025	25ml		
	SA075100	100ml		
	SA075500	500ml		
	SA07501L	1L		

c-Myc-tagged protein affinity purification resin

Anti-c-Myc Affinity Beads are used for the detection and purification of c-Myc-tagged proteins expressed in both prokaryotic and eukaryotic cells. The c-Myc peptide is encoded by the c-Myc gene located on human chromosome 8q24, corresponding to the 410th to 419th amino acids (EQKLISEEDL) of human p62. These affinity beads can recognize c-Myc-tagged proteins at the C-terminal, N-terminal, or internal sites. They are suitable for applications such as Western blot hybridization, immunoprecipitation, and flow cytometry.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Anti-c-Myc Affinity Beads	SA065001	1ml	> 1mg c-Myc-tagged protein	Anti-c-Myc Affinity Beads can be used to detect and purify the c-myc tagged proteins expressed by prokaryotic and eukaryotic cell.
	SA065005	5ml		
	SA065025	25ml		
	SA065100	100ml		
	SA065500	500ml		
	SA06501L	1L		

HA-tagged protein affinity purification resin

The HA tag is a peptide consisting of the 98th to 106th amino acids (YPYDVPDYA) of human influenza hemagglutinin and has minimal impact on the spatial structure of the target protein. This peptide can be fused to either the N-terminal or C-terminal of the protein, making it commonly used in the expression of recombinant proteins. Anti-HA Affinity Beads are based on 4% agarose beads and demonstrate high specificity for binding HA-tagged proteins. These beads can be used for the purification and immunoprecipitation (IP) of HA-tagged proteins.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Anti-HA Affinity Beads	SA068001	1ml	> 1mg HA-tagged protein	It is used for purification and detection of HA-tagged protein.
	SA068005	5ml		
	SA068025	25ml		
	SA068100	100ml		
	SA068500	500ml		
	SA06801L	1L		

Protein A fusion protein affinity purification resin

Rabbit IgG Beads 4FF is a one-step affinity chromatography for the purification of protein A fusion proteins. Protein A, a cell wall protein derived from Staphylococcus aureus, specifically binds to the Fc fragment of mammalian IgG. Consequently, Rabbit IgG is coupled to cross-linked 4% agarose beads, enabling effective purification and detection of protein A fusion proteins.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Rabbit IgG Beads 4FF	SA082005	5ml	> 1mg Protein A	Rabbit IgG Beads 4FF can be used to purify and detect the protein A fusion proteins expressed by prokaryotic and eukaryotic cells.
	SA082025	25ml		
	SA082100	100ml		
	SA082500	500ml		
	SA08201L	1L		
HiSelect IgG 4FF	SA028C47	1pcs, 4.7ml	> 1mg Protein A	
HiPur IgG 4FF	SA028C20	1pcs, 20ml		

Antibody Affinity Chromatography

- Universal antibody purification resin
- Monoclonal antibody purification resin
- Polyclonal antibody purification resin

03

Antibody Affinity Chromatography

Universal antibody purification resin

The ligands used in the purification of general antibodies mainly include Protein A and Protein G. These ligands are commonly used for the purification of both polyclonal and monoclonal antibodies.

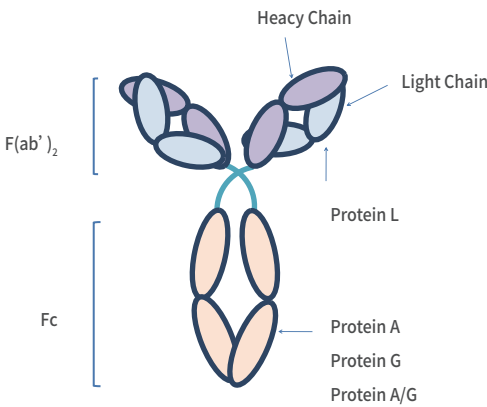


Fig. 3-1 the site of the antibody bind to the protein.

The binding capacity of protein A and protein G to immunoglobulins from different species and subclasses are different. The specific binding properties are shown in the table below.

Table 3-1 The binding ability of protein A, protein G and protein A/G to different antibodies.

Species	Subtype	Protein A	Protein G	Protein A/G
Human	IgA	variable	—	++
	IgD	—	—	—
	IgE	—	—	—
	IgG1	++++	++++	++++
	IgG2	++++	++++	++++
	IgG3	—	++++	++++
	IgG4	++++	++++	++++
	IgM	variable	—	++
Avian egg yolk	IgY	—	—	—
Cow	—	++	++++	++++
Dog	—	++++	++	++++

		Protein A	Protein G	Protein A/G
Goat	—	—	++++	++++
Guinea pig	IgG1	++++	++	++++
	IgG2	++++	++	++++
Hamster	—	+	++	—
Horse	Total IgG	++	++++	++++
Koala	—	—	+	—
Llama	—	—	+	—
Monkey(rhesus)	—	++++	++++	++++
Mouse	IgG1	+	++++	++
	IgG2a	++++	++++	++++
	IgG2b	+++	+++	+++
	IgG3	++	+++	+++
	IgM	variable	—	—
Pig	—	+++	+++	++++
Rabbit	Total IgG	++++	+++	++++
Rat	IgG1	—	+	++
	IgG2a	—	++++	++++
	IgG2b	—	++	++
	IgG3	+	++	++
Sheep	Total IgG	+/-	++	++

++++=Strong binding; ++ = medium binding; - = weak or no binding

Protein A related products

rProtein A Beads and rProtein A Beads 4FF are universal affinity chromatography medium for the purification of antibodies. Protein A, a cell wall protein isolated from Staphylococcus aureus, mainly binds to mammalian IgG via the Fc fragment but does not bind to human IgM, IgD, or IgA. Natural Protein A contains five IgG binding regions along with several unknown functional regions, while recombinant Protein A retains only the five IgG binding regions, which has low nonspecific adsorption.

The AbPur rProtein A Kit is tailored for the one-step purification of antibodies, which contains one pre-packed column and ready-to-use buffers.

Contents of AbPur rProtein A Kit

Product	Cat.No.	Size	Quantity
AbPur rProtein A Column	SA012GC03	3ml	1
Ab Binding/Wash Buffer	SLB017100	100ml	2
Ab Elution Buffer	SLB018100	100ml	1

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
rProtein A Beads	SA012005	5ml	>40 mg Human IgG	The kit can be used to purify both monoclonal and polyclonal antibodies, and the purity can reach 95% in one step. It is recommended for use at the laboratory scale.
	SA012025	25ml		
	SA012100	100ml		
	SA012500	500ml		
	SA01201L	1L		
	SA01210L	10L		
rProtein A Beads Gravity Column	SA012GC01	1ml		
	SA012GC05	5ml		

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
AbPur rProtein A Kit	SA012K03	3T	>40 mg Human IgG	rProtein A Beads 4FF can be used in FPLC and is easy to pack and use. Its high flow properties make it excellent for scaling-up.
AbPur rProtein A Buffer Kit	SA012KB03	3T		
rProtein A Beads 4FF	SA015005	5ml		
	SA015025	25ml		
	SA015100	100ml		
	SA015500	500ml		
	SA01501L	1L		
	SA01510L	10L		
rProtein A Beads 4FF Gravity Column	SA015GC01	1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA015GC05	5ml		
AbCap A 4FF	SA015C11	1×1ml		
	SA015C51	5×1ml		
	SA015C15	1×5ml		
	SA015C55	5×5ml		
	SA015CS	3×1ml+1×5ml		
HiSelect A 4FF	SA015C47	1pcs, 4.7ml		
HiPur A 4FF	SA015C20	1pcs, 20ml		
Smac A-ME	SA123005	5 ml	> 60 mg Human IgG	Enables elution of Fc-containing molecules under moderate pH conditions.
	SA123025	25 ml		
	SA123100	100 ml		
	SA123500	500 ml		
	SA12301L	1 L		
	SA12310L	10 L		
PreCap Smac A-ME	SA123C11	1x1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA123C51	5x1ml		
	SA123C15	1x5ml		
	SA123C55	5x5ml		
rProtein A-ME Beads 4FF	SA073005	5 ml	>15 mg Human IgG	Primarily designed for purification of monoclonal antibodies, polyclonal antibodies, or Fc-fusion proteins, this system enables antibody elution under elevated pH conditions (pH 5.0), effectively preserving biological activity.
	SA073025	25 ml		
	SA073100	100 ml		
	SA073500	500 ml		
	SA07301L	1 L		
HiSelect A-ME	SA073C47	1pcs, 4.7ml		
HiPur A-ME	SA073C20	1pcs, 20ml		

Protein G related products

rProtein G Beads and rProtein G Beads 4FF are utilized for the purification of antibodies. Protein G is a cell wall protein isolated from G streptococci, known for its ability to bind mammalian IgG through the Fc fragment. The recombinant protein G has high-affinity binding capacity and low nonspecificity. Notably, Protein G and Protein A exhibit distinct binding properties to IgG. Compared to Protein A, Protein G demonstrates a stronger binding affinity for polyclonal antibodies from sources such as cattle, sheep, and horses. It is also capable of binding rat IgG, human IgG3, and mouse IgG1, which do not bind well with Protein A.

The AbPur rProtein G kit is designed for the one-step purification of antibodies. This kit includes a prepacked column and ready-to-use buffer.

Contents of AbPur rProtein G Kit

Product	Cat.No.	Size	Quantity
AbPur rProtein G Column	SA016GC03	3ml	1
Ab Binding/Wash Buffer	SLB017100	100ml	2
Ab Elution Buffer	SLB018100	100ml	1

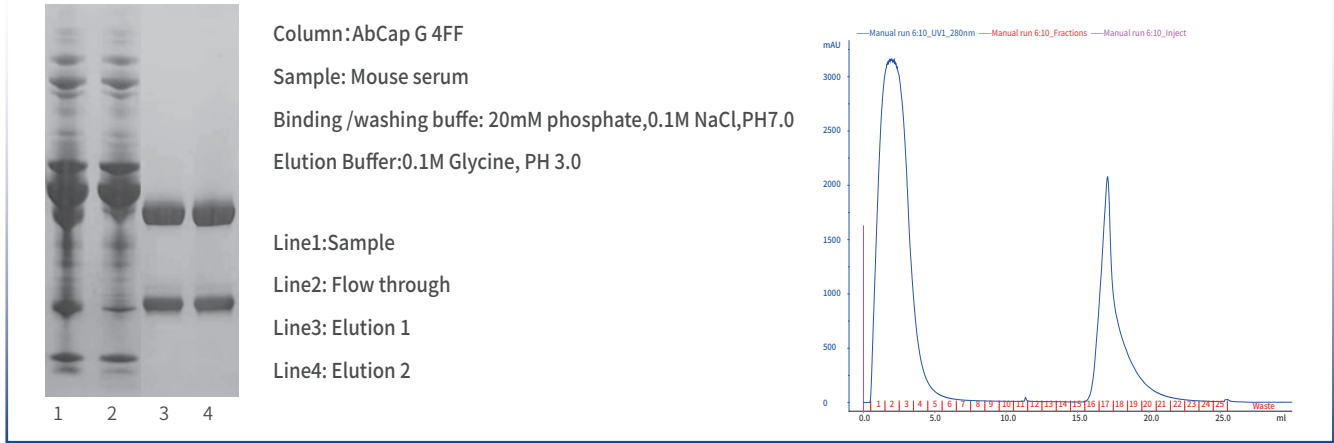


Fig. 3-2 Purification of antibody by AbCap G 4FF.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
rProtein G Beads	SA016005	5ml	>30 mg Goat IgG	The kit can be used to purify both monoclonal and polyclonal antibodies, and the purity can reach 95% in one step It is recommended for use at the laboratory scale.
	SA016025	25ml		
	SA016100	100ml		
	SA016500	500ml		
	SA01601L	1L		
	SA01610L	10L		
rProtein G Beads Gravity Column	SA016GC01	1ml		The one-step antibody purification kit is characterized by its simplicity of operation and high purification efficiency.
	SA016GC05	5ml		
AbPur rProtein G Kit	SA016K03	3T		rProtein G Beads 4FF can be used in FPLC and is easy to pack and use. Its high flow properties make it excellent for scaling-up.
AbPur rProtein G Buffer Kit	SA016KB03	3T		
rProtein G Beads 4FF	SA020005	5ml		
	SA020025	25ml		
	SA020100	100ml		
	SA020500	500ml		
	SA02001L	1L		
	SA02010L	10L		
rProtein G Beads 4FF Gravity Column	SA020GC01	1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA020GC05	5ml		
AbCap G 4FF	SA020C11	1×1ml		
	SA020C51	5×1ml		
	SA020C15	1×5ml		
	SA020C55	5×5ml		
	SA020CS	3×1ml+1×5ml		
HiSelect G 4FF	SA020C47	1pcs, 4.7ml		
HiPur G 4FF	SA020C20	1pcs, 20ml		

Protein A/G related products

rProtein A/G Beads 4FF is an affinity medium, designed for the purification, immunoprecipitation and Co- immuneprecipitation. The rProtein A/G is coupled to the highly cross-linked 4% agarose beads by a stable thioether linkage. The medium has higher antibody binding strength and lower protein nonspecific adsorption.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
rProtein A/G Beads 4FF	SA032005	5 ml	10-15mg human IgG	It is mainly used for detection of antigens and antibodies such as IP and Co-IP.
	SA032025	25ml		
	SA032100	100ml		
	SA032500	500ml		
	SA03201L	1L		
	SA03210L	10L		
AbCap A/G 4FF	SA032C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA032C51	5×1ml		
	SA032C15	1×5ml		
	SA032C55	5×5ml		
	SA032CS	3×1ml+1×5ml		
HiSelect A/G 4FF	SA032C47	1pcs, 4.7ml		
HiPur A/G 4FF	SA032C20	1pcs, 20ml		

Protein L related products

rProtein L Beads and rProtein L Beads 4FF are universal affinity chromatography medium designed for the simple, one-step purification of various classes, subclasses, and fragments of immunoglobulins from biological samples and cell culture supernatant. Unlike Protein A and Protein G, which primarily bind to the Fc regions of immunoglobulins, Protein L targets the variable region of kappa light chains, allowing it to bind a broader range of immunoglobulin classes and subclasses. Consequently, Protein L is particularly well-suited for capturing different-sized antibody fragments, including Fab fragments, single-chain variable fragments (scFvs), and domain antibodies (dAbs).

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
rProtein L Beads	SA045005	5ml	>15 mg human IgG	rProtein L is obtained by gene recombination technology. rProtein L Beads 4FF can bind to the kappa light chains of antibodies.
	SA045025	25ml		
	SA045100	100ml		
	SA045500	500ml		
	SA04501L	1L		
	SA04510L	10L		
rProtein L Beads 4FF	SA033005	5ml		
	SA033025	25ml		
	SA033100	100ml		
	SA033500	500ml		
	SA03301L	1L		
	SA03310L	10L		
AbCap L 4FF	SA033C11	1×1ml		
	SA033C51	5×1ml		
	SA033C15	1×5ml		
	SA033C55	5×5ml		
	SA033CS	3×1ml+1×5ml		
HiSelect L 4FF	SA033C47	1pcs, 4.7ml		
HiPur L 4FF	SA033C20	1pcs, 20ml		
Smac L	SA100005	5ml	>60 mg human IgG	Smac L is an affinity chromatography medium designed for the purification of both monoclonal and bispecific antibodies. It is composed of highly rigid agarose microspheres, allowing for purification at relatively high flow rates.
	SA100025	25ml		
	SA100100	100ml		
	SA100500	500ml		
	SA10001L	1L		

Monoclonal antibody purification resin

Monoclonal antibody purification products mainly refer to Protein At Beads 4FF, Protein At Beads LX and Protein SupAt Beads, which can purify monoclonal antibodies at relatively high flow rates. These products are designed for cleaning-in-place using 0.1–0.5 M NaOH, making them suitable for industrial customers aiming to efficiently produce and scale up antibody production. Key features include:

1. High dynamic binding capacity and adsorption efficiency. 2. Resistance to cleaning-in-place with 0.1–0.5 M NaOH, ensuring a long shelf life. After 200 cleaning cycles with 0.1 M NaOH, the medium's loading capacity remains nearly unchanged. After 100 cycles with 0.5 M NaOH, the loading capacity still exceeds 80% of the initial value. 3. A relatively stable directional coupling method is employed, resulting in low ligand leaching (less than 10 ng/mg IgG). 4. Effective removal of host cell proteins (HCP) and DNA, achieving HCP residues below 1 µg/mg and HCDNA residues below 1 ppm, comparable to leading commercial products. 5. Comprehensive documentation and data are provided to support drug submissions.

Item	Protein At Beads 4FF	Protein At Beads LX	Protein SupAt Beads
Matrix	Highly crosslinked 4% agarose	Highly crosslinked agarose	Highly crosslinked agarose
Average particle size	~ 90 µm	~ 85 µm	~ 60 µm
Ligand	Alkali resistance Protein A	Alkali resistance Protein A LX	Ultra alkali resistance Protein A
Binding capacity*	> 40mg Human IgG / ml medium	> 60mg Human IgG / ml medium	> 80mg Human IgG / ml medium
Work pH	3-12	3-12	3-10
Cleaning-in-place	0.1-0.5 M NaOH	0.1-0.5 M NaOH	0.5-1 M NaOH
Velocity	50-300 cm/h	50-500 cm/h	100-500 cm/h
Storage conditions	1×PBS containing 20% ethanol, 2°C - 8°C		

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Protein At Beads 4FF	SA023005	5ml	>40 mg Human IgG	Protein At Beads 4FF is easy to pack and use. Its high stability and high flow properties make it excellent for scaling-up.
	SA023025	25ml		
	SA023100	100ml		
	SA023500	500ml		
	SA02301L	1L		
	SA02310L	10L		
Protein At Beads 4FF Gravity Column	SA023GC01	1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA023GC05	5ml		
MabCap At 4FF	SA023C11	1×1ml		
	SA023C51	5×1ml		
	SA023C15	1×5ml		
	SA023C55	5×5ml		
Protein At Beads LX	SA023CS	3×1ml+1×5ml	>60 mg Human IgG	Protein At Beads LX has a high dynamic binding capacity (DBC) and is specially designed for processing feed from high-expression cell cultures with increased antibody titers.
	SA023C47	1pcs, 4.7ml		
	SA023C20	1pcs, 20ml		
	SA085005	5ml		
	SA085025	25ml		
	SA085100	100ml		
MabCap At LX	SA085500	500ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA08501L	1L		
	SA08510L	10L		
	SA085C11	1×1ml		
Protein At Beads LXPro	SA085C51	5×1ml		
	SA085C15	1×5ml		
PreCap At LXPro	SA085C55	5×5ml	> 80 mg Human IgG	Designed specifically for high-titer antibody purification, Protein A Beads LXPro exhibit high dynamic binding capacity under extended residence time.
	SA085CS	3×1ml+1×5ml		
	SA085C47	4.7ml, 1支		
	SA085C20	20ml, 1支		
	SA124005	5 ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA124025	25 ml		
Protein At Beads LXPro	SA124100	100 ml		
	SA124500	500 ml		
	SA12401L	1 L		
	SA12410L	10 L		
PreCap At LXPro	SA124C11	1x1ml		
	SA124C51	5x1ml		
	SA124C15	1x5ml		
	SA124C55	5x5ml		

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Protein SupAt Beads	SA095005	5ml	>80 mg Human IgG	Protein SupAt Beads has a high dynamic binding capacity (DBC) and is specially designed to process feed from high-expression cell cultures with increased antibody titers. The alkali resistance, high loading capacity, low ligand shedding, and highly cross-linked rigid matrix of agarose gels make the packings particularly suitable for large-scale purification of antibodies for industrial or clinical applications.
	SA095025	25ml		
	SA095100	100ml		
	SA095500	500ml		
MabCap SupAt Beads	SA09501L	1L		
	SA095C11	1×1ml		
	SA095C51	5×1ml		
	SA095C15	1×5ml		
	SA095C55	5×5ml		
	SA095CS	3×1ml+1×5ml		
HiSelect SupAt	SA095C47	1支, 4.7ml		
HiPur SupAt	SA095C20	1支, 20ml		

Polyclonal antibody purification resin

Pre-activated resin

PabPur SulfoLink Beads 4FF allow for efficient covalent immobilization of sulfhydryl-containing peptides, proteins, and other ligands for use in affinity purification. Specifically, cysteine residues at the N- or C-terminus of antigens can be effectively coupled to PabPur SulfoLink Beads, facilitating antibody purification. NHS-Activated Beads 4FF are pre-activated agarose beads to which ligands, such as proteins and peptides, can be coupled via primary amino groups. This pre-activated medium enables the preparation of affinity adsorbents capable of isolating specific substances from complex mixtures, often achieving high purity in one step.

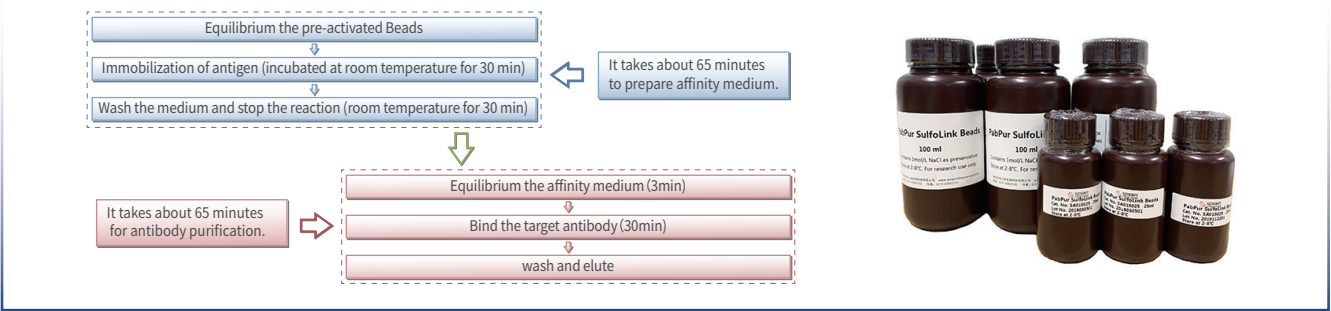


Fig. 3-3 The process of purification of polyclonal antibody with pre-activated Beads.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
PabPur SulfoLink Beads	SA018005	5ml	5.0-7.0 mg HC-7 peptides	Immobilization of sulfhydryl-containing peptides, proteins, and other ligands onto a medium for use in affinity purification.
	SA018025	25ml		
	SA018100	100ml		
	SA018250	250ml		
PabPur SulfoLink Beads 4FF	SA069005	5ml	2.5-5.0 mg HC-7 peptides	
	SA069025	25ml		
	SA069100	100ml		
	SA069250	250ml		
NHS-Activated Beads 4FF	SA039005	5ml	>10 mg IgG	NHS-Activated Beads 4FF is used for covalent immobilization of substances by the primary amino groups.
	SA039025	25ml		
	SA039100	100ml		
	SA039500	500ml		
	SA03901L	1L		
NHS-Activated LA Beads 4FF	SA083005	5ml		It reduces steric hindrance between ligands, offers strong pressure resistance, and maintains stability after protein coupling, making it suitable for large-scale industrial purification.
	SA083025	25ml		
	SA083100	100ml		
	SA083500	500ml		
	SA08301L	1L		

Other Chromatography

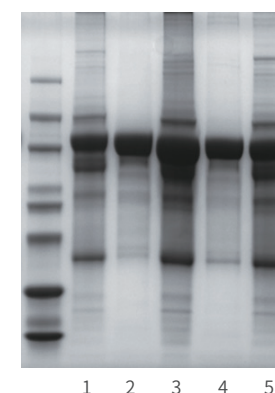
- Specific groups purification resin
- Ion Exchange purification resin
- Hydrophobic Interaction purification resin
- Multimodal Chromatography purification resin
- Polymer-Based Chromatography resin
- Silica-Based Chromatography resin

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Other Chromatography

Specific groups purification resin

Blue Beads 6FF is an affinity chromatography designed for the purification of albumin, interferon, lipoproteins, and blood coagulation factors. It also binds various enzymes, including kinases, dehydrogenases, and those requiring adenylyl-containing cofactors. Based on highly cross-linked 6% agarose beads, Blue Beads 6FF has excellent chemical and mechanical stability, making it ideal for large-scale purification of albumin and interferon.



Column: Blue Beads 6FF

Sample: Human serum

Binding/Washing Buffer: 50mM Tris, 400mM NaCl, pH8.0

Elution buffer: 50mM Tris, 400mM NaCl, 1M NaSCN, pH8.0

Line1: Flow though

Line2: Elution fraction

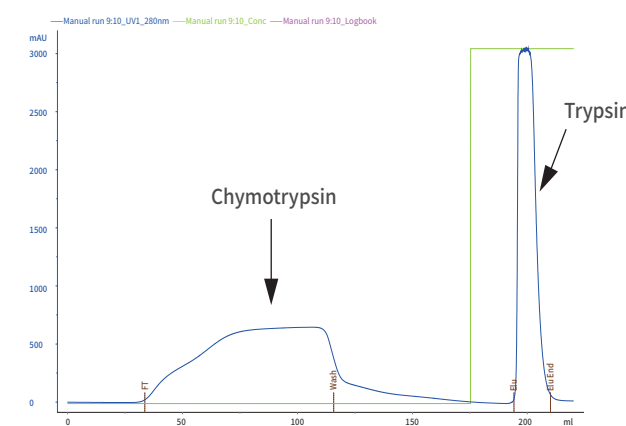
Line3: Sample

Line4: Elution of the competitor

Line5: Flow through of the competitive product

Fig. 4-1 One step purification of HSA from human serum.

Benzamidine Beads 4FF is based on highly cross-linked 4% agarose beads with p-aminobenzamidine covalently coupled as the ligand. As a broad-spectrum inhibitor of serine proteases, Benzamidine Beads 4FF are ideal for purifying serine proteinases, including trypsin, trypsin-like proteases, urokinase, and prekallikrein.



Medium: Benzamidine Beads 4FF

Chromatographic column: SXX16/200mm

Sample: Trypsin and chymotrypsin mixture

Binding: 50mM tris, 500mM NaCl, pH7.4

Elution: 50mM NaAc, 200mM NaCl, pH2.7

Fig.4-2 The affinity trypsin of chymotrypsin by Benzamidine Beads 4FF.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Heparin Beads 6FF	SA024005	5ml	2 mg antithrombin III	Heparin Beads 6FF is designed for the purification of proteins such as antithrombin III, coagulation factors, and other plasma proteins, as well as DNA-binding proteins, lipoproteins, protein synthesis factors, nucleic acid-acting enzymes, and steroid receptors.
	SA024025	25ml		
	SA024100	100ml		
	SA024500	500ml		
	SA02401L	1L		
	SA02410L	10L		
Heparin Beads 6FF Gravity Column	SA024GC01	1ml		
	SA024GC05	5ml		
PreCap Heparin	SA024C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA024C51	5×1ml		
	SA024C15	1×5ml		
	SA024C55	5×5ml		
	SA024CS	3×1ml+1×5ml		
HiSelect Heparin 6FF	SA024C47	1pcs, 4.7ml		
HiPur Heparin 6FF	SA024C20	1pcs, 20ml		
Blue Beads 6FF	SA027005	5ml	>20 mg BSA	It can purify albumin, interferon, lipoproteins and blood coagulation factors and most enzymes requiring adenyl-containing cofactors. It is an ideal medium for purification of albumin and interferon at process scale.
	SA027025	25ml		
	SA027100	100ml		
	SA027500	500ml		
	SA02701L	1L		
	PreCap Blue	SA02710L		10L
SA027C11		1×1ml		
SA027C51		5×1ml		
SA027C15		1×5ml		
SA027C55		5×5ml		
SA027CS		3×1ml+1×5ml		
HiSelect Blue 6FF	SA027C47	1pcs, 4.7ml		
HiPur Blue 6FF	SA027C20	1pcs, 20ml		20 mg thyroglobulin
Con A Beads 4FF	SA028005	5ml		
	SA028025	25ml		
	SA028100	100ml		
	SA028500	500ml		
	SA02801L	1L		
	SA02810L	10L		
Con A Beads 4FF Gravity Column	SA028GC01	1ml		
	SA028GC05	5ml	The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.	
HiSelect Con A 4FF	SA028C47	1pcs, 4.7ml		
HiPur Con A 4FF	SA028C20	1pcs, 20ml		
PreCap Con A	SA028C11	1×1ml		
	SA028C51	5×1ml		
	SA028C15	1×5ml		
	SA028C55	5×5ml		
	SA028CS	3×1ml+1×5ml		
Endotoxin Removal Beads	SA031005	5ml	>2,000,000 EU	Polymyxin B is coupled to 4% agarose beads, enabling effective endotoxin removal from biological samples. The ligand of this product is PMB affinity ligand.
	SA031025	25ml		
	SA031100	100ml		
	SA031500	500ml		
	SA03101L	1L		
Endotoxin Removal Beads Gravity Column	SA031GC01	1ml	It contains gravity columns and buffers for endotoxin removal.	
	SA031GC05	5ml		
Endotoxin Removal Kit	SA031K03	3T	6mg/ml density	LCA Beads 4FF can detect and purify glycoproteins, membrane proteins, glycolipids, polysaccharides, membrane vesicles with mannoside or glucoside residues, IgM, hormones and lipoproteins.
LCA Beads 4FF	SA097005	5ml		
	SA097025	25ml		
	SA097100	100ml		
	SA097500	500ml		
	SA09701L	1L		

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Benzamidine Beads 4FF	SA044005	5ml	>20 mg trypsin	It can be used to purify serine proteinases, such as trypsin and trypsin-like proteases.
	SA044025	25ml		
	SA044100	100ml		
	SA044500	500ml		
	SA04401L	1L		
	SA04410L	10L		
PreCap Benzamidine 4FF	SA044C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SA044C51	5×1ml		
	SA044C15	1×5ml		
	SA044C55	5×5ml		
	SA044CS	3×1ml+1×5ml		
HiSelect Benzamidine 4FF	SA044C47	1pcs, 4.7ml		
HiPur Benzamidine 4FF	SA044C20	1pcs, 20ml		
Iminobiotin Beads 6FF	SA059005	5ml	>20 mg streptavidin	It enables one-step purification of streptavidin.
	SA059025	25ml		
	SA059100	100ml		
	SA059500	500ml		
	SA05901L	1L		
	SA05910L	10L		
Gelatin Beads 4FF	SA054005	5ml	1 mg fibronectin	It enables one-step purification of fibronectin.
	SA054025	25ml		
	SA054100	100ml		
	SA054500	500ml		
	SA05401L	1L		
	SA0410L	10L		
Boric Acid Beads 4FF	SA057005	5ml	>7mg glycoprotein	It can be used to purify carbohydrates, nucleosides, nucleotides, nucleic acids and enzymes, especially for the glycoproteins.
	SA057025	25ml		
	SA057100	100ml		
	SA057500	500ml		
	SA05701L	1L		
	SA05710L	10L		
Lysine Beads 4FF	SA046005	5ml	—	It can be used to purify fibrinolytic activator, fibrinolytic progenitor and ribonucleic acid.
	SA046025	25ml		
	SA046100	100ml		
	SA046500	500ml		
	SA04601L	1L		
	SA04610L	10L		
Plasmid Bind Beads 6FF	SA066005	5ml	~2mg sc pDNA	It is a sulfuraffinic aromatic chromatography medium that enables the separation of supercoiled covalently closed circular plasmid DNA from open circular forms.
	SA066025	25ml		
	SA066100	100ml		
	SA066500	500ml		
	SA06601L	1L		
	SA06610L	10L		
Plasmid Purification Beads	SI014030	30ml	>500µg plasmid /ml	It enables rapid, one-step purification of plasmid.
	SI014100	100ml		
	SI014300	300ml		
	SI014500	500ml		
	SI01401L	1L		
	SA096005	5ml		
AAV Affinity Beads 4FF	SA096025	25ml	7mg/ml density	AAV Affinity Beads 4FF is an affinity chromatography medium for the purification of adeno-associated virus (AAV) with high affinity for several subtypes of AAV.
	SA096100	100ml		
	SA09601L	1L		

Ion Exchange purification resin

Smart-Lifesciences provides ion exchange resins with four ligands (DEAE, CM, SP, and Q) and two substrates. Available product formats include both resin and pre-packed columns.

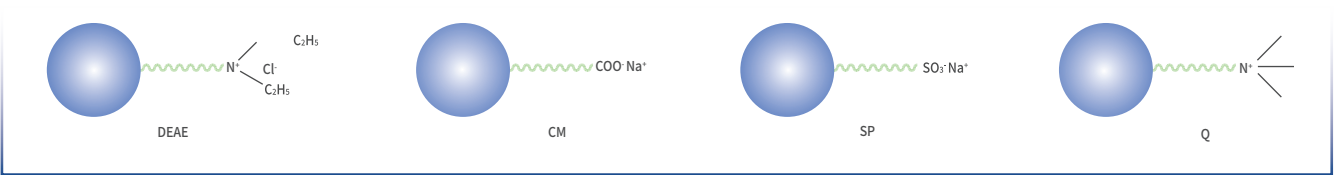


Fig.4-3 The structure diagram of four ion exchange chromatography.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Q Beads 6FF	SI001025	25ml	0.18-0.25 mmol Cl ⁻	Q Beads 6FF is a strong anion exchange resin and suitable for the separation of negatively charged proteins in laboratory and industrial scale.
	SI001100	100ml		
	SI001500	500ml		
	SI00101L	1L		
	SI00110L	10L		
lexCap Q 6FF	SI001C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SI001C51	5×1ml		
	SI001C15	1×5ml		
	SI001C55	5×5ml		
HiSelect Q 6FF	SI001C47	1pcs, 4.7ml		
HiPur Q 6FF	SI001C20	1pcs, 20ml		
SP Beads 6FF	SI003025	25ml	0.18-0.25 mmol H ⁺	SP Beads 6FF is a strong cation exchange resin and suitable for the separation of positively charged proteins in laboratory and industrial scale.
	SI003100	100ml		
	SI003500	500ml		
	SI00301L	1L		
	SI00310L	10L		
lexCap SP 6FF	SI003C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SI003C51	5×1ml		
	SI003C15	1×5ml		
	SI003C55	5×5ml		
HiSelect SP 6FF	SI003C47	1pcs, 4.7ml		
HiPur SP 6FF	SI003C20	1pcs, 20ml		
DEAE Beads 6FF	SI005025	25ml	0.11-0.16 mmol Cl ⁻	DEAE Beads is a weak anion exchange resin and suitable for the separation of negatively charged proteins in laboratory and industrial scale.
	SI005100	100ml		
	SI005500	500ml		
	SI00501L	1L		
	SI00510L	10L		
lexCap DEAE 6FF	SI005C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such asSmart GO™ and Smart PUR™.
	SI005C51	5×1ml		
	SI005C15	1×5ml		
	SI005C55	5×5ml		
HiSelect DEAE 6FF	SI007C47	1pcs, 4.7ml		
HiPur DEAE 6FF	SI007C20	1pcs, 20ml		
CM Beads 6FF	SI007025	25ml	0.09-0.13 mmol H ⁺	CM Beads 6FF is a weak cation exchange resin and suitable for the separation of positively charged proteins in laboratory and industrial scale.
	SI007100	100ml		
	SI007500	500ml		
	SI00701L	1L		
	SI00710L	10L		
lexCap CM 6FF	SI007C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SI007C51	5×1ml		
	SI007C15	1×5ml		
	SI007C55	5×5ml		
HiSelect CM 6FF	SI007C47	1pcs, 4.7ml		
HiPur CM 6FF	SI007C20	1pcs, 20ml		
lexCap Select	SI008CS	4×1ml	—	lexCap Select includes four 1 mL pre-packed columns: lexCap Q 6FF, lexCap SP 6FF, lexCap DEAE 6FF, and lexCap CM 6FF.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Smac Q	SI019025	25ml	0.16-0.23 mmol Cl ⁻	It is widely used in the separation and purification of downstream proteins, nucleic acids and peptides in biopharmaceutical and bio engineering. Its high flow rate and resolution enhance the production efficiency of industrial downstream processes.
	SI019100	100ml		
	SI019500	500ml		
	SI01901L	1L		
	SI01910L	10L		
lexCap Smac Q	SI019C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such asSmart GO™ and Smart PUR™.
	SI019C51	5×1ml		
	SI019C15	1×5ml		
	SI019C55	5×5ml		
HiSelect Smac Q	SI019C47	1pcs, 4.7ml		
HiPur Smac Q	SI019C20	1pcs, 20ml		
Smac Q 40	SI035025	25ml	0.15-0.19 mmol Cl ⁻	Smac Q 40 adopts high flow rate agarose beads, which has stronger rigidity and still has high dynamic binding capacity under high flow rate, which can improve the production efficiency in industrial downstream processes
	SI035100	100ml		
	SI035500	500ml		
	SI03501L	1L		
	SI03510L	10L		
lexCap Smac Q 40	SI035C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SI035C51	5×1ml		
	SI035C15	1×5ml		
	SI035C55	5×5ml		
HiSelect Smac Q 40	SI035C47	1pcs, 4.7ml		
HiPur Smac Q 40	SI035C20	1pcs, 20ml		
Smac SP	SI027025	25ml	0.14-0.21mmol H ⁺	It can be used for rapid and efficient purification of a variety biomolecules. The medium has high binding force and small bead size, which is easier to optimize and scale up.
	SI027100	100ml		
	SI027500	500ml		
	SI02701L	1L		
	SI02710L	10L		
lexCap Smac SP	SI027C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SI027C51	5×1ml		
	SI027C15	1×5ml		
	SI027C55	5×5ml		
HiSelect Smac SP	SI027C47	1pcs, 4.7ml		
HiPur Smac SP	SI027C20	1pcs, 20ml		
Smac SP 40	SI028025	25ml	0.13-0.17mmol H ⁺	It can be used for rapid and efficient purification of a variety biomolecules. The medium has high binding force and small bead size, which is easier to optimize and scale up.
	SI028100	100ml		
	SI028500	500ml		
	SI02801L	1L		
	SI02810L	10L		
lexCap Smac SP 40	SI028C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SI028C51	5×1ml		
	SI028C15	1×5ml		
	SI028C55	5×5ml		
HiSelect Smac SP 40	SI028C47	1pcs, 4.7ml		
HiPur Smac SP 40	SI028C20	1pcs, 20ml		
DEAE Smartdex A-25	SI0091	25g	3.0-4.0mmol Cl ⁻ /g dry powder	DEAE Smartdex A-25 is a modified dextran gel that exhibits weak anion exchange functionality. This ion exchange resin is widely used in biomedical and bioengineering applications for the separation and purification of proteins, nucleic acids, and polypeptides.
	SI0092	100g		
	SI0093	500g		
	SI0094	1kg		
	SI0095	10kg		
	SI0096	25kg		

Hydrophobic Interaction purification resin

Hydrophobic interaction chromatography consists of three ligands (butyl, octyl, and phenyl) immobilized on highly cross-linked agarose beads. It can be used in multiple formats, including conventional gravity-flow chromatography and purification system. PreCap columns are pre-packed columns containing this medium.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Butyl Beads 4FF	SH001025	25ml	~7 mg IgG >26 mg BSA	Butyl Beads 4FF is an aliphatic hydrophobic interaction medium and has the weakest hydrophobicity to the substances.
	SH001100	100ml		
	SH001500	500ml		
	SH00101L	1L		
PreCap Butyl 4FF	SH001C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SH001C51	5×1ml		
	SH001C15	1×5ml		
	SH001C55	5×5ml		
HiSelect Butyl 4FF	SH001C47	1pcs, 4.7ml		
HiPur Butyl 4FF	SH001C20	1pcs, 20ml		
Butyl Beads HF	SH016025	25 ml	≥26 mg BSA	Suitable for the separation of biomolecules with aliphatic ligands, the highly rigid agarose microspheres can withstand higher flow rates and provide enhanced chemical stability.
	SH016100	100 ml		
	SH016500	500 ml		
	SH01601L	1 L		
	SH01610L	10L		
HiPur Butyl HF	SH016C20	20 ml		Packed with Butyl Beads HF, the prepacked column features standard fittings for compatibility with a wide range of low-to-medium pressure chromatog-raphy systems, simplifying customer operation.
PreCap Butyl HF	SH016C11	1X1 ml		
	SH016C51	5X1 ml		
	SH016C15	1X5 ml		
	SH016C55	5X5 ml		
HiSelect Butyl HF	SH016C47	4.7 ml		
Smac Butyl 40	SH014025	25ml		Engineered for the separation of biomolecules with aliphatic ligands, this chromatography resin delivers high binding capacity and small particle size, ensuring reliable performance for industrial-scale purification processes.
	SH014100	100ml		
	SH014500	500ml		
	SH01401L	1L		
	SH01410L	10L		
HiPur Smac Butyl 40	SH014C20	20 ml	25-35 mg BSA	Packed with Smac Butyl 40, the column features standard fittings for seamless compatibility with diverse low-to-medium pressure chromatography systems, stream-lining user operation.
HiSelect Smac Butyl 40	SH014C47	4.7 ml		
PreCap Butyl 40	SH014C11	1X1 ml		
	SH014C51	5X1 ml		
	SH014C15	1X5 ml		
	SH014C55	5X5 ml		
Octyl Beads 4FF	SH003025	25ml	约 26 mg IgG >7 mg BSA	Octyl Beads 4FF is an aliphatic hydrophobic interaction medium and has the medium hydrophobicity to the substances.
	SH003100	100ml		
	SH003500	500ml		
	SH00301L	1L		
PreCap Octyl 4FF	SH003C11	1×1ml		The columns have the standard interface that can be adapted to the liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SH003C51	5×1ml		
	SH003C15	1×5ml		
	SH003C55	5×5ml		
HiSelect Octyl 4FF	SH003C47	1pcs, 4.7ml		
HiPur Octyl 4FF	SH003C20	1pcs, 20ml		
Phenyl Beads 6FF (Low Sub)	SH004025	25ml	约 10 mg IgG >24 mg BSA	Phenyl Beads 6FF is suitable for separation of hydrophobic proteins. 1)According to the selectivity and binding capacity required for separation, there are two levels of density of the ligand phenyl. 2)The medium with low substitution (LS) and high substitution (HS) are composed of 90 um highly cross-linked agarose beads. 3)Phenyl is coupled to the uncharged agarose beads by ether bond. 4)The medium has high resolution and binding capacity. The prepacked columns are ready for use.
	SH004100	100ml		
	SH004500	500ml		
	SH00401L	1L		
PreCap Phenyl LS 6FF	SH004C11	1×1ml		
	SH004C51	5×1ml		
	SH004C15	1×5ml		
	SH004C55	5×5ml		

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
HiSelect Phenyl 6FF LS	SH004C47	1pcs, 4.7ml	~ 30 mg IgG >36 mg BSA	Phenyl Beads 6FF is suitable for separation of hydrophobic proteins. 1)According to the selectivity and binding capacity required for separation, there are two levels of density of the ligand phenyl. 2)The medium with low substitution (LS) and high substitution (HS) are composed of 90 um highly cross-linked agarose beads. 3)Phenyl is coupled to the uncharged agarose beads by ether bond. 4)The medium has high resolution and binding capacity. The prepacked columns are ready for use.
HiPur Phenyl 6FF LS	SH004C20	1pcs, 20ml		
Phenyl Beads 6FF (High Sub)	SH006025	25ml		
	SH006100	200ml		
	SH006500	500ml		
	SH00601L	1L		
PreCap Phenyl HS 6FF	SH006C11	1×1ml		
	SH006C51	5×1ml		
	SH006C15	1×5ml		
	SH006C55	5×5ml		
HiSelect Phenyl 6FF HS	SH006C47	1pcs, 4.7ml		
HiPur Phenyl 6FF HS	SH006C20	1pcs, 20ml		
PreCap Select	SH009CS	4×1ml		PreCap Select content of four 1ml prepacked columns, including PreCap Butyl 4FF, PreCap Octyl 4FF, PreCap Phenyl LS 6FF and PreCap Phenyl HS 6FF.
Phenyl Beads HF(High Sub)	SH015025	25 ml	≥36 mg BSA	Suitable for the separation and purification of proteins with aromatic ligands, the highly rigid agarose microspheres withstand higher flow rates and provide enhanced chemical stability.
	SH015100	100 ml		
	SH015500	500 ml		
	SH01501L	1 L		
	SH01510L	10 L		
HiSelect Phenyl HF HS	SH015C47	4.7 ml		Packed with Phenyl Beads HF (High Sub), the prepacked column features standard fittings for compatibility with a wide range of low-to-medium pressure chromatography systems, enhancing user-friendliness.
HiPur Phenyl HF HS	SH015C20	20 ml		
PreCap Phenyl HF (HS)	SH015C11	1X1 ml		
	SH015C51	5X1 ml		
	SH015C15	1X5 ml		
	SH015C55	5X5 ml		
Phenyl Beads HF(Low Sub)	SH018025	25 ml	26-36 mg BSA	Suitable for the separation and purification of proteins with aromatic ligands, the highly rigid agarose microspheres withstand higher flow rates and provide enhanced chemical stability.
	SH018100	100 ml		
	SH018500	500 ml		
	SH01801L	1 L		
	SH01810L	10L		
HiSelect Phenyl HF LS	SH018C47	4.7 ml		Packed with Phenyl Beads HF (Low Sub), the pre-packed column features standard fittings for compatibility with diverse low-to-medium pressure chromatography systems, simplifying user operation.
HiPur Phenyl HF LS	SH018C20	20 ml		
PreCap Phenyl HF (LS)	SH018C11	1X1 ml		
	SH018C51	5X1 ml		
	SH018C15	1X5 ml		
	SH018C55	5X5 ml		
Smac Phenyl 40	SH013025	25ml	25-35 mg BSA	Optimized for the separation and purification of proteins bearing aromatic ligands, this resin delivers high binding capacity and small particle size, making it a reliable solution for industrial-scale purification.
	SH013100	100ml		
	SH013500	500ml		
	SH01301L	1L		
	SH01310L	10L		
HiPur Smac Phenyl 40	SH013C20	20 ml		Packed with Smac Butyl 40, the column features standard fittings for seamless compatibility with diverse low-to-medium pressure chromatogra-phy systems, streamlining user operation.
HiSelect Smac Phenyl 40	SH013C47	4.7 ml		
PreCap Phenyl 40	SH013C11	1X1 ml		
	SH013C51	5X1 ml		
	SH013C15	1X5 ml		
	SH013C55	5X5 ml		

Multimodal Chromatography purification resin

Multimodal chromatography resin have more than one interaction exists between the stationary phase and the analyte. The ligands employed in these resins have different modes of interaction during purification, including size exclusion, affinity, ion exchange, and hydrophobic interactions. These diverse interactions enhance selectivity throughout the purification process.

SmartCore 700 (Polymer matrix)

SmartCore 700 can be used in the intermediate purification and polishing of viruses and other large biomolecules. The resin features a functional core surrounded by a hydrophilic outer layer, which prevents larger molecules from entering the core. In contrast, smaller molecules and impurities can access the core, where they bind to the hydrophobic and positively charged octylamine ligands. The molecular size cut-off for proteins is approximately 700 kDa.

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
SmartCore 700	SEC0220	25 ml	15-20 mg BSA (5% flow through points)	SmartCore 700 multimodal chromatography resins is designed for intermediate purification and polishing of viruses and other large biomolecules. Known for its higher flow rate, SmartCore 700 could significantly improve production efficiency, and is suitable for large-scale production.
	SEC0221	100 ml		
	SEC0222	500 ml		
	SEC0223	1L		
	SEC0224	10L		
PreCap SmartCore 700	SEC022C11	1×1ml		
	SEC022C51	5×1ml		
	SEC022C15	1×5 ml		
	SEC022C55	5×5 ml		
HiSelect SmartCore 700	SEC022C47	1pcs, 4.7ml		
HiPur SmartCore 700	SEC022C20	1pcs, 20ml		

Smac Core 700 (Highly rigid agarose spheres matrix)

SmartCore 700 can be used in the intermediate purification and polishing of viruses and other large biomolecules. The resin features a functional core surrounded by a hydrophilic outer layer, which prevents larger molecules from entering the core. In contrast, smaller molecules and impurities can access the core, where they bind to the hydrophobic and positively charged octylamine ligands. The molecular size cut-off for proteins is approximately 700 kDa.

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Smac Core 700	SEC0281	25ml	> 13 mg BSA	Smac Core 700 utilizes a core bead design, with the core activated by octylamine and a ligand-free outer layer. This multimodal chromatography medium is ideal for intermediate purification and polishing of large biomolecules in flow-through mode.
	SEC0282	100 ml		
	SEC0283	500 ml		
	SEC0284	1L		
PreCap Smac Core 700	SEC028C11	1×1ml		
	SEC028C51	5×1 ml		
	SEC028C15	1×5ml		
	SEC028C55	5×5 ml		

Smac MMA

Smac MMA is a multimodal strong anion exchange resin with ionic interaction, hydrogen bond, hydrophobic interaction. Smac MMA can remove key impurities such as DNA, host cell proteins (HCP), leached protein A, aggregates, and viruses in post-protein A purification steps. It can also be used for fine purification of other biomolecules, such as the removal of dimers, polymers, host cell proteins, and nucleic acids.

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Smac MMA	SI031025	25 ml	0.11–0.16 mmol Cl ⁻	Smac MMA can be used for moderate and fine purification of monoclonal antibodies, as well as for the fine purification of other biomolecules.
	SI031100	100 ml		
	SI031500	500 ml		
	SI03101L	1L		
	SI03110L	10L		
lexCap Smac MMA	SI031C11	1×1ml		
	SI031C51	5×1ml		
	SI031C15	1×5ml		
	SI031C55	5×5ml		

Smac MMC

Smac MMC is a multimodal weak cation exchange resin with ionic interaction, hydrogen bond, hydrophobic interaction. It can be used for fast and efficient protein purification. The Smac MMC has the following characteristics:
1. Unique selectivity compared to conventional ion exchange media. 2. High dynamic binding capacity under high conductivity conditions. 3. Easy to optimize and scale up.

Products Name	Cat.No.	Size	Characteristics (/ml medium)	Applications
Smac MMC	SI033025	25 ml	0.07-0.10 mmol H ⁺	Smac MMC can be used for fast and efficient protein purification.
	SI033100	100ml		
	SI033500	500 ml		
	SI03301L	1L		
	SI03310L	10L		
lexCap Smac MMC	SI033C11	1X1 ml		
	SI033C51	5X1 ml		
	SI033C15	1X5 ml		
	SI033C55	5X5 ml		
HiSelect Smac MMC	SI033C47	4.7 ml		
HiPur Smac MMC	SI033C20	20 ml		
Smac MMC 40	SI032025	25 ml	0.07-0.09 mmol H ⁺	Smac MMC 40 can be used for moderate and fine purification of monoclonal antibodies. The product has high binding ability selectivity over a wide range of pH and salt concentrations.
	SI032100	100ml		
	SI032500	500 ml		
	SI03201L	1L		
	SI03210L	10L		
lexcap Smac MMC 40	SI032C11	1×1ml		
	SI032C15	1×5ml		
	SI032C51	5×1ml		
	SI032C55	5×5ml		
HiSelect Smac MMC 40	SI032C47	4.7 ml		
HiPur Smac MMC 40	SI032C20	20 ml		

Hydroxyapatite (CHT)

Hydroxyapatite (CHT) is a unique mixed-mode rigid chromatography media for downstream purification, combining both ion exchange and metal affinity binding capabilities. It possesses distinct separation capabilities not offered by other media. CHT enables the capture of target proteins via calcium ions and can also capture positively charged groups through its phosphate groups.

Using elution buffer solutions containing sodium chloride or similar salts, Hydroxyapatite effectively reduces HCD (Host Cell DNA) and HCP (Host Cell Protein) levels in mAbs (Monoclonal Antibodies).

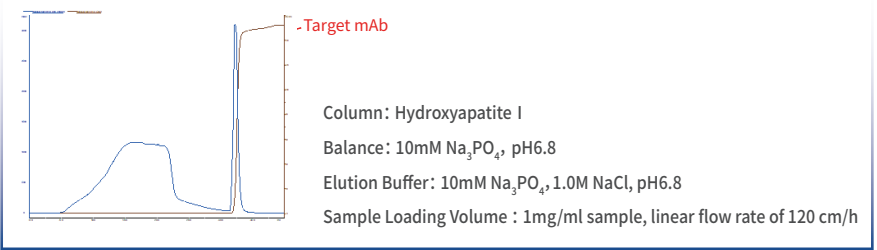


Fig. 4-4 Hydroxyapatite Pure mAb Sample

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Hydroxyapatite 60 (CHT I 60)	SA111005	5 g	>40 mg mlgG	It can be applied to the purification of various types of biomolecules such as monoclonal and polyclonal antibodies, recombinant proteins, vaccines, enzymes, nucleic acids, etc. Suitable for purifying acidic proteins.
	SA111020	20 g		
	SA111100	100 g		
	SA111500	500 g		
	SA1111KG	1Kg		
Hydroxyapatite 40 (CHT I 40)	SA106005	5 g		
	SA106020	20 g		
	SA106100	100 g		
	SA106500	500 g		
	SA1061KG	1Kg		
Hydroxyapatite 20 (CHT I 20)	SA113005	5 g		
	SA113020	20 g		
	SA113100	100 g		
	SA113500	500 g		
	SA1131KG	1Kg		
Hydroxyapatite 60 (CHT II 60)	SA112005	5 g	>15 mg mlgG	CHT II has a larger pore size, suitable for IgM, viruses, VLP, Purification of large particle biomolecules such as plasmids (>400KD).
	SA112020	20 g		
	SA112100	100 g		
	SA112500	500 g		
	SA1121KG	1Kg		
Hydroxyapatite 40 (CHT II 40)	SA107005	5 g		
	SA107020	20 g		
	SA107100	100 g		
	SA107500	500 g		
	SA1071KG	1Kg		
Hydroxyapatite 20 (CHT II 20)	SA114005	5 g		
	SA114020	20 g		
	SA114100	100 g		
	SA114500	500 g		
	SA1141KG	1Kg		

Polymer-Based Chromatography resin

Smart-Lifesciences utilizes PS/DVB and PGMA base matrices to functionalize microspheres, creating customized chromatography resins for ion exchange, hydrophobic interaction, and reversed-phase purification of nucleic acids, peptides, and other biomacromolecules.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
Q 70S Phmac Beads	SI039005	5 ml	0.15-0.25mmol Cl ⁻	Strong anion exchange resins based on a polyacrylate matrix, specifically engineered for industrial-scale purification of biologics, including antibodies, vaccines, virus-like particles (VLPs), recombinant proteins, and blood-derived therapeutics. This platform also supports nucleic acid purification and the removal of host cell DNA and protein impurities.
	SI039025	25 ml		
	SI039100	100 ml		
	SI039500	500 ml		
	SI03901L	1 L		
	SI03910L	10 L		
Q 70M Phmac Beads	SI056005	5 ml		
	SI056025	25 ml		
	SI056100	100 ml		
	SI056500	500 ml		
	SI05601L	1 L		
	SI05610L	10 L		
Q 70L Phmac Beads	SI060005	5 ml		
	SI060025	25 ml		
	SI060100	100 ml		
	SI060500	500 ml		
	SI06001L	1 L		
	SI06010L	10 L		

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
PreCap Q 70S	SI039C11	1×1 ml	0.15-0.25mmol Cl ⁻	The columns feature standard interfaces compatible with liquid chromatography systems such as Smart GO™ and Smart PUR™.
	SI039C51	5×1 ml		
	SI039C15	1×5 ml		
	SI039C55	5×5 ml		
PreCap Q 70M	SI056C11	1×1 ml		
	SI056C51	5×1 ml		
	SI056C15	1×5 ml		
	SI056C55	5×5 ml		
PreCap Q 70L	SI060C11	1×1 ml		
	SI060C51	5×1 ml		
	SI060C15	1×5 ml		
	SI060C55	5×5 ml		
DEAE 70S Phmac Beads	SI049005	5 ml		Weak anion exchange resins based on a polyacrylate matrix, engineered for industrial-scale purification of biologics, including antibodies, vaccines, virus-like particles (VLPs), recombinant proteins, and blood-derived therapeutics. This platform also supports nucleic acid purification and efficient removal of host cell DNA and protein impurities.
	SI049025	25 ml		
	SI049100	100 ml		
	SI049500	500 ml		
	SI04901L	1 L		
DEAE 70M Phmac Beads	SI04910L	10 L		
	SI050005	5 ml		
	SI050025	25 ml		
	SI050100	100 ml		
	SI050500	500 ml		
DEAE 70L Phmac Beads	SI05001L	1 L		
	SI05010L	10 L		
	SI051005	5 ml		
	SI051025	25 ml		
	SI051100	100 ml		
PreCap DEAE 70S	SI051500	500 ml		
	SI05101L	1 L		The columns feature standard interfaces compatible with liquid chromatography systems such as Smart GO™ and Smart PUR™.
	SI05110L	10 L		
	SI049C11	1×1 ml		
	SI049C51	5×1 ml		
PreCap DEAE 70M	SI049C15	1×5 ml		
	SI049C55	5×5 ml		
	SI050C11	1×1 ml		
	SI050C51	5×1 ml		
PreCap DEAE 70L	SI050C15	1×5 ml		
	SI050C55	5×5 ml		
	SI051C11	1×1 ml		
	SI051C51	5×1 ml		
SP 70S Phmac Beads	SI051C15	1×5 ml		
	SI051C55	5×5 ml		
	SI040005	5 ml	0.15-0.25mmol H ⁺	Strong cation exchange resins based on a polyacrylate matrix, engineered for industrial-scale purification of biologics—including antibodies, vaccines, virus-like particles (VLPs), recombinant proteins, and blood-derived therapeutics. This platform also supports nucleic acid purification and efficient removal of host cell DNA and protein impurities.
	SI040025	25 ml		
	SI040100	100 ml		
	SI040500	500 ml		
SP 70M Phmac Beads	SI04001L	1 L		
	SI04010L	10 L		
	SI053005	5 ml		
	SI053025	25 ml		
	SI053100	100 ml		
SP 70L Phmac Beads	SI053500	500 ml		
	SI05301L	1 L		
	SI05310L	10 L		
	SI059005	5 ml		
	SI059025	25 ml		
SP 70L Phmac Beads	SI059100	100 ml		
	SI059500	500 ml		
	SI05901L	1 L		
	SI05910L	10 L		

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)	Applications
PreCap SP 70S	SI040C11	1×1 ml	0.15-0.25mmol H ⁺	The columns feature standard interfaces compatible with liquid chromatography systems, such as Smart GO™ and Smart PUR™.
	SI040C51	5×1 ml		
	SI040C15	1×5 ml		
	SI040C55	5×5 ml		
PreCap SP 70M	SI053C11	1×1 ml		
	SI053C51	5×1 ml		
	SI053C15	1×5 ml		
	SI053C55	5×5 ml		
PreCap SP 70L	SI059C11	1×1 ml		
	SI059C51	5×1 ml		
	SI059C15	1×5 ml		
	SI059C55	5×5 ml		
CM 70S Phmac Beads	SI062005	5 ml		
	SI062025	25 ml		
	SI062100	100 ml		
	SI062500	500 ml		
	SI06201L	1 L		
	SI06210L	10 L		
CM 70M Phmac Beads	SI063005	5 ml		
	SI063025	25 ml		
	SI063100	100 ml		
	SI063500	500 ml		
	SI06301L	1 L		
	SI06310L	10 L		
CM 70L Phmac Beads	SI064005	5 ml		
	SI064025	25 ml		
	SI064100	100 ml		
	SI064500	500 ml		
	SI06401L	1 L		
	SI06410L	10 L		
PreCap CM 70S	SI062C11	1×1 ml		
	SI062C51	5×1 ml		
	SI062C15	1×5 ml		
	SI062C55	5×5 ml		
PreCap CM 70M	SI063C11	1×1 ml		
	SI063C51	5×1 ml		
	SI063C15	1×5 ml		
	SI063C55	5×5 ml		
PreCap CM 70L	SI064C11	1×1 ml		
	SI064C51	5×1 ml		
	SI064C15	1×5 ml		
	SI064C55	5×5 ml		
Smart PS 15Q	SI066005	5ml		
	SI066025	25ml		
	SI066100	100ml		
	SI066500	500ml		
	SI06601L	1L		
	SI06610L	10L		
Smart PS 15S	SI068005	5ml		
	SI068025	25ml		
	SI068100	100ml		
	SI068500	500ml		
	SI06801L	1L		
	SI06810L	10L		
Smart PS 30Q	SI069005	5ml		
	SI069025	25ml		
	SI069100	100ml		
	SI069500	500ml		
	SI06901L	1L		
	SI06910L	10L		
Smart PS 30S	SI070005	5ml		
	SI070025	25ml		
	SI070100	100ml		
	SI070500	500ml		
	SI07001L	1L		
	SI07010L	10L		
Butyl Phmac Beads	SH019025	25ml		
	SH019100	100ml		
	SH019500	500ml		
	SH01901L	1L		
	SH01910L	10L		
			40±5 mg Lysozyme	Featuring a poly(methacrylate) matrix functionalized with hydrophobic ligands, this chromatography resin offers excellent biocompatibility and robust physical-chemical stability, enabling broad applicability in downstream purification of antibodies, recombinant proteins, vaccines, peptides, and nucleic acids.

Silica-Based Chromatography resin

To meet the growing demand for spherical silica, we have developed an optimized, highly controlled large-scale manufacturing process applicable to all smart-lifesciences products, without compromising silica quality. Key factors such as particle morphology, pore size, particle size distribution, silica purity, and surface properties all significantly impact chromatographic performance. Therefore, to establish a superior manufacturing process, it is essential to comprehensively evaluate and optimize these parameters to ensure consistent batch-to-batch reproducibility.

MonoSilica C8/C18

MonoSilica C8/C18 is a versatile, high-purity silica-based packing material designed for the purification of small molecules, small nucleic acids, and peptides. It delivers well-balanced performance across key parameters, including separation efficiency, loading capacity, recovery rate, and mechanical strength.

Products	Bonded Phase	Particle Size	Pore Size	Cat.No.	pH
MonoSilica C8 10-300	C8	10	300	SH022	2-9
MonoSilica C18 10-300	C18	10	300	SH023	2-9
MonoSilica C8 10-100	C8	10	100	SH024	2-9
MonoSilica C18 10-100	C18	10	100	SH025	2-9
Smart AQC8 10-100	C8	10	100	SH028	2-9
Smart AQC18 10-100	C18	10	100	SH029	2-9

Smart C8/C18

Smart C8/C18 is a high-performance functionalized spherical silica gel, specifically engineered to meet the rigorous demands of peptide purification. Designed for both analytical and preparative chromatography, it offers exceptional chemical resistance, separation efficiency, reproducibility, and scalability, making it an ideal solution for pharmaceutical, biotechnology, and research applications.

Products	Bonded Phase	Particle Size	Pore Size	Cat.No.	pH	Mobile Phase Stability
Smart C8 10-100	C8	10	100	SH020	1-9	up to 12
Smart C18 10-100	C18	10	100	SH021	1-9	up to 12
Smart C8 10-150	C8	10	150	SH030	1-9	up to 13
Smart C18 10-150	C18	10	150	SH031	1-9	up to 13

Products	Cat.No.	Size	
Inox Smart C8 10-100	SH020HP-N250	4.6*250mm	Internal Diameter: 4.6 mm (N), 10 mm (Q), 20 mm (T) Column Dimensions: The trailing letter denotes tube length (standard: 100 mm, 250 mm) For custom dimensions, specify requirements in order notes.
	SH020HP-Q250	10*250mm	
	SH020HP-T250	20*250mm	
Inox Smart C18 10-100	SH021HP-N250	4.6*250mm	
	SH021HP-Q250	10*250mm	
	SH021HP-T250	20*250mm	
Inox MonoSilica C18 10-300	SH023HP-N250	4.6*250mm	
	SH023HP-Q250	10*250mm	
	SH023HP-T250	20*250mm	
Inox MonoSilica C8 10-100	SH024HP-N250	4.6*250mm	
	SH024HP-Q250	10*250mm	
	SH024HP-T250	20*250mm	
Inox MonoSilica C18 10-100	SH025HP-N250	4.6*250mm	
	SH025HP-Q250	10*250mm	
	SH025HP-T250	20*250mm	
Inox Smart AQC18 10-100	SH029HP-N250	4.6*250mm	
	SH029HP-Q250	10*250mm	
	SH029HP-T250	20*250mm	
Inox Smart C8 10-150	SH030HP-N250	4.6*250mm	
	SH030HP-Q250	10*250mm	
	SH030HP-T250	20*250mm	
Inox Smart C18 10-150	SH031HP-N250	4.6*250mm	
	SH031HP-Q250	10*250mm	
	SH031HP-T250	20*250mm	

Other Products

- Magnetic Beads
- Instruments and consumables

05

Other Products

Magnetic Beads

Magarose Beads for protein purification

Magarose beads are superparamagnetic with rapid magnetic response, abundant hydroxyl functional groups, and uniform particle sizes, making them valuable tools in medical and molecular biology research. With particle sizes ranging from 30 to 100 μm, they are suitable for the detection and purification of target proteins.

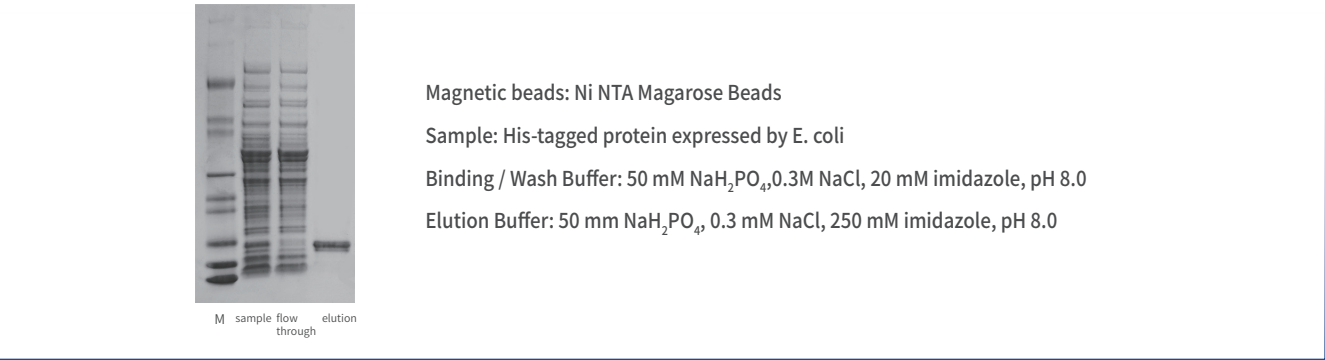


Fig.5-1 SDS-PAGE analysis of the purification of His-tagged protein using Ni-NTA Magarose Beads.

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)
Ni IDA Magarose Beads	SM001001	1ml	>40 mg His-tagged protein
	SM001005	5ml	
	SM001025	25ml	
	SM001100	100ml	
	SM00101L	1L	
Ni NTA Magarose Beads	SM008001	1ml	>40 mg His-tagged protein
	SM008005	5ml	
	SM008025	25ml	
	SM008100	100ml	
	SM00801L	1L	
Ni Smart Magarose Beads	SM025001	1ml	10 mg His-tagged protein
	SM025005	5ml	
	SM025025	25ml	
	SM025100	100ml	
	SM02501L	1L	
Glutathione Magarose Beads	SM002001	1ml	5-10 mg GST-tagged protein
	SM002005	5ml	
	SM002025	25ml	
	SM002100	100ml	
	SM00201L	1L	
rProtein A Magarose Beads	SM003001	1ml	>40mg Rabbit IgG /ml Beads
	SM003005	5ml	
	SM003025	25ml	
	SM003100	100ml	
	SM00301L	1L	

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)
rProtein G Magarose Beads	SM004001	1ml	>30mg Goat IgG
	SM004005	5ml	
	SM004025	25ml	
	SM004100	100ml	
	SM00401L	1L	
Anti-DYKDDDDK Magarose Beads	SM009001	1ml	>1 mg DYKDDDDK-tagged protein
	SM009005	5ml	
	SM009025	25ml	
	SM009100	100ml	
	SM00901L	1L	
Anti-GFP Magarose Beads	SM038001	1ml	>1 mg GFP-tagged protein
	SM038005	5ml	
	SM038025	25ml	
	SM038100	100ml	
	SM03801L	1L	
NHS-Activated Magarose Beads	SM031001	1ml	>10mg Rabbit IgG
	SM031005	5ml	
	SM031025	25ml	
	SM003100	100ml	
	SM03101L	1L	

Magpoly Beads for Immunoprecipitation

Magpoly beads designed for immunoprecipitation are coupled with a high density of ligands, making them have outstanding antibody binding capacity and low nonspecific adsorption. These beads can be used for one-step antibody purification from sample mixtures. Magpoly beads are widely used in immunoprecipitation, co-immunoprecipitation, and immunoadsorption applications.

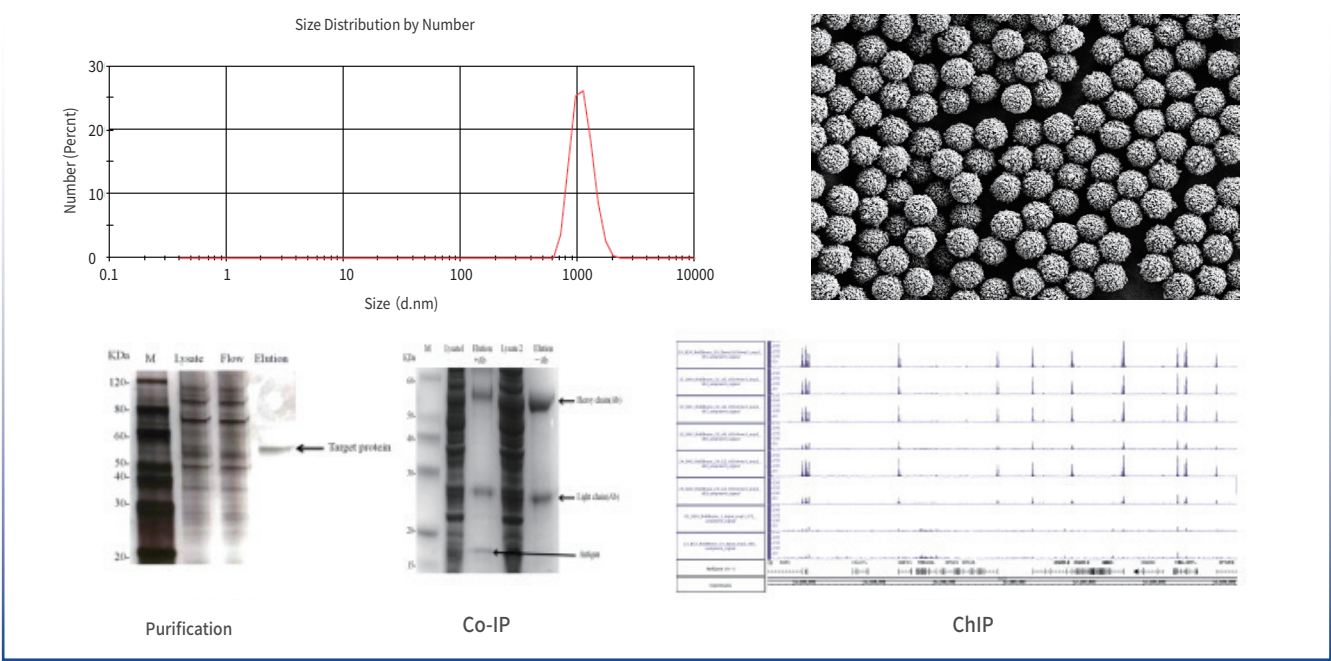


Fig. 5-2 The application of Magpoly Beads .

Product Information

Products	Cat.No.	Size	Characteristics (/ml medium)
rProtein A MagPoly Beads	SM037001	1 ml	>50 µg hIgG/mg Beads
	SM037005	5 ml	
	SM037010	10 ml	
	SM037050	50 ml	
	SM037100	100 ml	
	SM037500	500 ml	
	SM03701L	1 L	
rProtein A/G MagPoly Beads	SM015001	1 ml	>50µg Rabbit IgG/mg Beads
	SM015005	5 ml	
	SM015010	10 ml	
	SM015050	50 ml	
	SM015100	100 ml	
	SM015500	500 ml	
	SM01501L	1 L	
Streptavidin MagPoly Beads	SM017001	1 ml	Intended for immobilization of biotin and capture of biotinylated substances including proteins, antibodies, and related biomolecules.
	SM017005	5 ml	
	SM017010	10 ml	
	SM017050	50 ml	
	SM017100	100 ml	
	SM017500	500 ml	
	SM01701L	1 L	
NHS-Activated MagPoly Beads	SM030001	1 ml	It is pre-activated magpoly beads and can be directly used for the coupling of amino containing proteins or peptides.
	SM030005	5 ml	
	SM030010	10 ml	
	SM030050	50 ml	
	SM030100	100 ml	
	SM030500	500 ml	
	SM03001L	1L	
Oligo(dT)25Magpoly Beads	SM080001	1 ml	Designed for mRNA isolation.
	SM080005	5 ml	
	SM080010	10 ml	
	SM080050	50 ml	
	SM080100	100 ml	
	SM080500	500 ml	
	SM08001L	1L	
Epoxy-Activated MagPoly Beads	SM020001	1ml	It is the superparamagnetic polymer beads with epoxy groups on the surface.
	SM020005	5ml	

Instruments and consumables

32/24 / 96 Channel Automatic Purification Instruments

Purifier 32 uses magnetic bead separation technology. Unlike other methods that involve moving liquids, this system transfers magnetic beads between deep-well plates containing specific reagents. Magnetic rods equipped with disposable sleeves facilitate the collection, release, transfer, and incubation of magnetic beads by separating the rods from the sleeves. It can extract high-quality nucleic acids from samples such as saliva, swabs, dried blood spots, whole blood, serum/plasma, animal and plant tissues.

Purifier 24 is designed for the automated transfer and processing of magnetic particles in a 24-well microplate format. Each well can accommodate a maximum volume of 4 mL, enabling optimal purification of free DNA, antibodies, and antigens. This system offers enhanced flexibility for fast and reproducible results across a wide range of applications.

Purifier 96 is tailored for customers with ultra-high throughput requirements, capable of processing 500 to 1,500 samples per day per set. The machine features 8 plate sites, each independently heated to maintain sample integrity and purity. The integrated Smart Pro program allows users to easily control the instrument, minimizing operational errors. Both Purifier 24 and Purifier 96 share the same model, equipped with two magnetic rods and heating modules.

Products	Cat.No.
Purifier 96	P961001
Purifier 32	P321001
Purifier 24	P241001



Smart GO™ is a compact liquid chromatography system with highly integrated piping design and modular layout, minimizing system dead volume and optimizing experimental space. The Vaticy operating software, with built-in parameter data of various Smart-Lifesciences pre-packed columns, making it faster and easier for users to start and operate. It is mainly used for laboratory-scale process research, and can be used to purify proteins, antibodies, vaccines, peptides, viruses, and other macromolecules, ranging from micrograms to grams in size.

Smart PUR™ is a precise and stable chromatography system with flexible expansion configurations, supporting the purification of recombinant proteins, antibodies, vaccines, nucleic acids, diagnostic materials, and other target products, from microgram to gram quantities, making it suitable for the diverse experimental studies. The Vaticy operating software, with built-in parameter data of various Smart-Lifesciences pre-packed columns, making it faster and easier for users to start and operate, and is the best partner for process development.

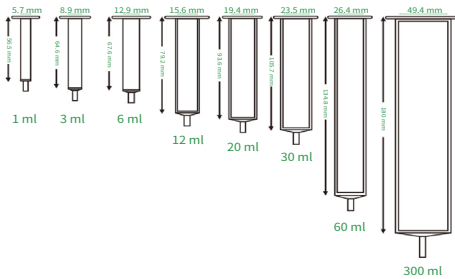
Product Information

Products	Cat.No.	Size
Smart GO™ 150	E015	unit
Smart GO™ 100	E016	unit
Smart GO™ 35	E017	unit
Smart PUR™ 150	E012	unit
Smart PUR™ 100	E013	unit
Smart PUR™ 35	E014	unit



Consumables

Empty column of gravity chromatography							
Cat.No.	SLM001	SLM004	SLM005	SLM006	SLM007	SLM025	SLM009
Size (ml)	12 ml	1ml	3 ml	6 ml	30 ml	60 ml	300 ml
Inner diameter (mm)	15.6 mm	5.6 mm	8.9 mm	12.7 mm	22.5 mm	26.2 mm	49.4 mm
height (mm)	83 mm	55 mm	63 mm	66 mm	101 mm	134 mm	180 mm
volume (ml)	12 ml	1 ml	3 ml	6 ml	30 ml	60 ml	300 ml
Material (column tube)	polypropylene						
Material (filter membrane)	polypropylene						
Pore size of filter	50μm						
Chemical stability	It is stable in all commonly used reagents						



Single-layer glass column

Column Structure: The empty column, upper flange, adapter (axial expansion), sealing ring, lower flange, inlet and outlet.

Material: High borosilicate glass

Maximum Pressure: 3-6bar

Chemical Stability: Stable in the presence of acids, alkalis, and organic solvents (Should not be operated with solvents such as acetone, methane, ammonium hydroxide, or dichloromethane for extended periods)

Axial Expansion: The axial expansion feature allows for adjustments in packing height, thereby enhancing separation efficiency.

Operating Temperature: 0 °C - 60 °C

Filter: 50 mesh -500 mesh, depending on the size of the medium, effectively blocking general dextran gel, agarose gel, and macroporous resin.

Cleaning: Soapy water and detergent are suitable for cleaning the columns. If the column is contaminated by protein, it can be cleaned with detergent.

Sterilization: Under 120 °C, autoclave for 20 minutes.

Product Information

Single-layer Column (S Series)					
inner diameter	Cat.No.	Size(inner diameter * length)	inner diameter	Cat.No.	Size(inner diameter * length)
Inner diameter 15 mm	S1520	15*200	Inner diameter 25 mm	S2520	25*200
	S1530	15*300		S2530	25*300
	S1540	15*400		S2540	25*400
	S1550	15*500		S2550	25*500
	S1560	15*600		S2560	25*600
	S1575	15*750		S2575	25*750
	S15100	15*1,000		S25100	25*1,000
	S3520	35*200	Inner diameter 50 mm	S5020	50*200
Inner diameter 35 mm	S3530	35*300		S5030	50*300
	S3540	35*400		S5040	50*400
	S3550	35*500		S5050	50*500
	S3560	35*600		S5060	50*600
	S3575	35*750		S5075	50*750
	S35100	35*1,000		S50100	50*1,000

Product Information

Single-layer Column (S Series)					
inner diameter	Cat.No.	Size(inner diameter * length)	inner diameter	Cat.No.	Size(inner diameter * length)
Inner diameter 75 mm	S7530	75*300	Inner diameter 100 mm	S10030	100*300
	S7540	75*400		S10040	100*400
	S7550	75*500		S10050	100*500
	S7560	75*600		S10060	100*600
	S7575	75*750		S10075	100*750
	S75100	75*1,000		S100100	100*1,000

Double-layer Column (SXX Series)

01 Uniform Flow Rate

Plunger design for ensuring homogeneous buffer distribution and reproducible packing.

02 Temperature Stability

Adapter with QuickLock mechanism for enhanced column handling and cleaning.

03 Good Column Efficiency

Fittings for direct connection to chromatography systems.

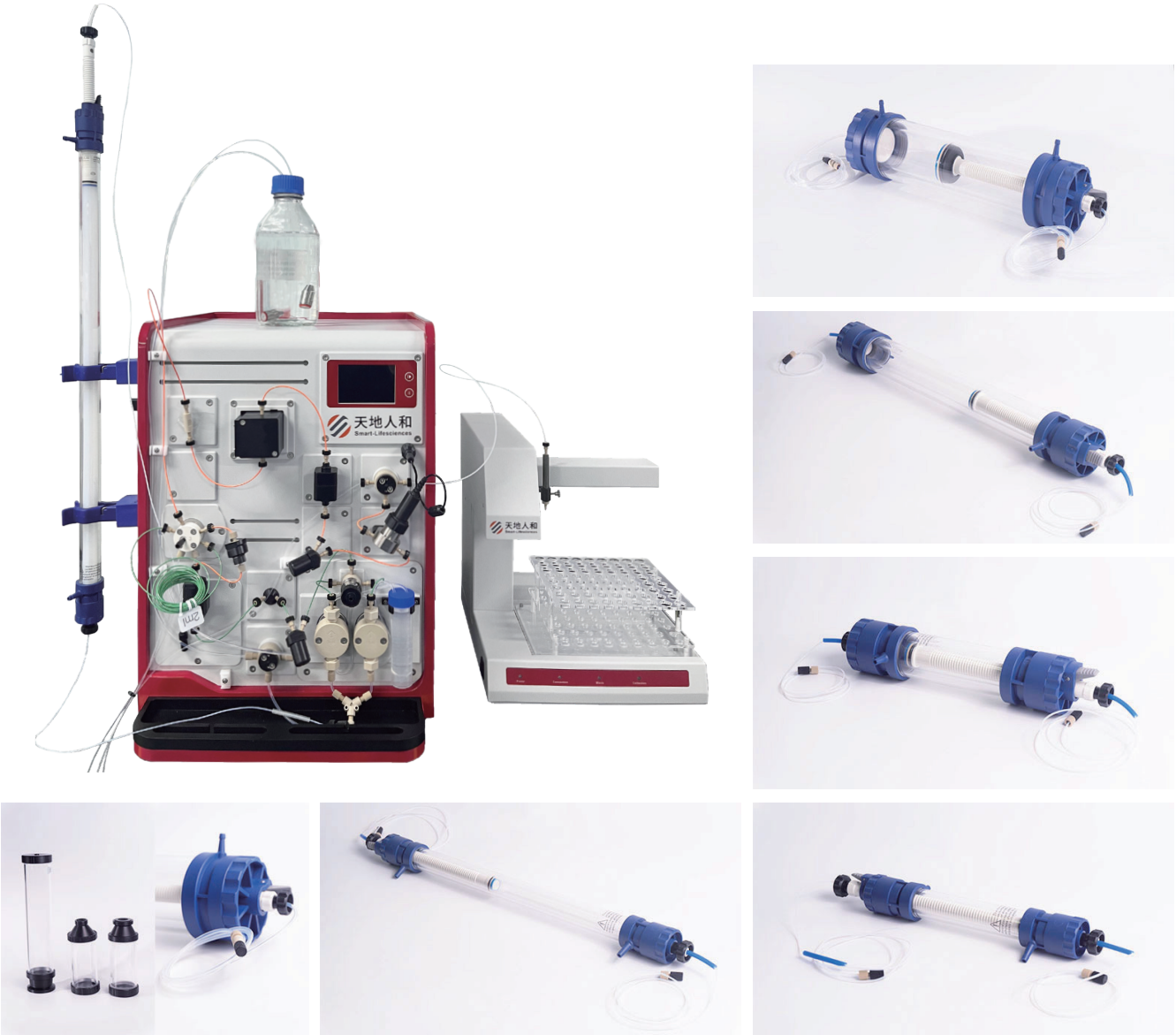
04 High Chemical Tolerance

Cooling jacket for sensitive purifications.

Product Information

Double-layer Column (SXX Series)				
Cat.No.	Size(inner diameter * length mm)	Pressure (bar)	Filling volume(ml)	Loading height(mm)
SXX 16/20	16*200	5	4-33	20-165
SXX 16/30	16*300	5	24-53	120-265
SXX 16/40	16*400	5	44-73	220-365
SXX 16/50	16*500	5	64-93	320-465
SXX 16/60	16*600	5	84-113	420-565
SXX 16/70	16*700	5	104-133	520-665
SXX 16/80	16*800	5	124-153	620-765
SXX 16/90	16*900	5	144-173	720-865
SXX 16/100	16*1,000	5	164-193	820-965
SXX 26/20	26*200	5	10.5-86	20-165
SXX 26/30	26*300	5	63-140	120-265
SXX 26/40	26*400	5	115-190	220-365
SXX 26/50	26*500	5	167-242	320-465
SXX 26/60	26*600	5	220-295	420-565
SXX 26/70	26*700	5	273-350	520-665
SXX 26/80	26*800	5	325-400	620-765
SXX 26/90	26*900	5	377-455	720-865
SXX 26/100	26*1,000	5	430-508	820-965
SXX 50/20	50*200	3	30-330	15-165
SXX 50/30	50*300	3	230-530	115-265
SXX 50/40	50*400	3	430-730	215-365
SXX 50/50	50*500	3	630-930	315-465
SXX 50/60	50*600	3	830-1130	415-565
SXX 50/70	50*700	3	1030-1330	515-665
SXX 50/80	50*800	3	1230-1530	615-765
SXX 50/90	50*900	3	1430-1730	715-865
SXX 50/100	50*1,000	3	1630-1930	815-965

Product	Cat.No.	Size
16 Packing reservoir	SXX1601	Suitable for SXX16 column
26 Packing reservoir	SXX2601	Suitable for SXX26 column
50 Packing reservoir	SXX5001	Suitable for SXX50 column
16 adapter	SXX1602	Suitable for SXX16 column
26 adapter	SXX2602	Suitable for SXX26 column
50 adapter	SXX5002	Suitable for SXX50 column



For more product information, please click on the official website www.smart-lifesciences.com

For more events, training seminars, product updates, etc., please visit the official public number of Tiandi Renhe Biologicals.