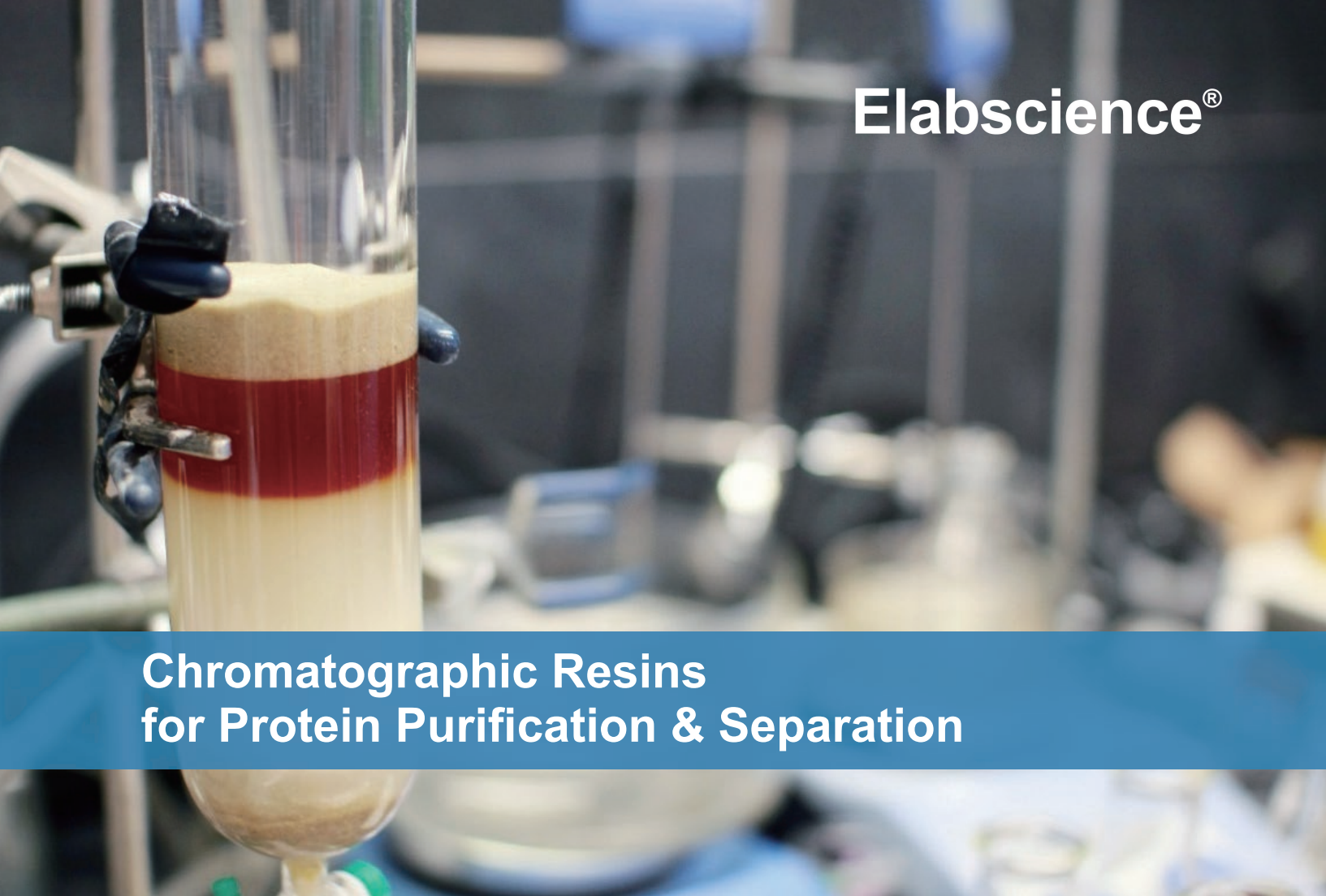


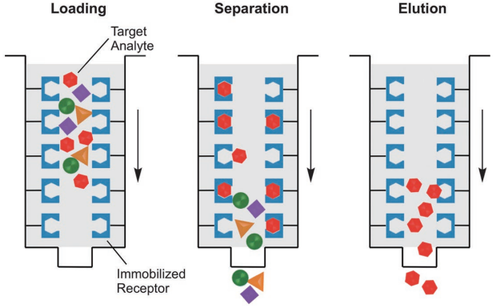
Elabscience®

Chromatographic Resins for Protein Purification & Separation

Company Profile

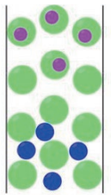
Elabscience specializes in immunodiagnostic technology for life science community. We have complete platform for R&D and manufacture. At the same time, we have in house QC for every product, endeavoring to keep your experiment results more consistent and precise. Through unremitting effort and development, our customers have spread in more than 100 countries all over the world. Elabscience major products cover Proteins, Antibodies, ELISA Kits, CLIA Kits, Labeling Kits and related reagents. Now we also offer high-quality guaranteed resins which are involved in ion exchange chromatography, gel chromatography, hydrophobic interaction chromatography and affinity chromatography to help you in biomolecule separation and purification work.

Chromatography



Chromatography is a laboratory technique for the separation of a mixture. The mixture is dissolved in a fluid called the mobile phase, which carries it through a kind of structure holding another material called the stationary phase. According to the differences of physicochemical property of every components in mixture, different components of the mixture will travel at different speed, and some certain component even will combine with stationary phase. Subtle differences in partition coefficient of compound result in differential retention on the stationary phase and thus affect the separation.

Gel filtration chromatography



Size-exclusion
(molecular size)

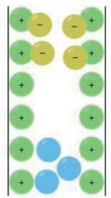
Gel beads is used as stationary phase in GFC which separates molecules based on their differences in size. Every single gel beads is just like a sifter. Different type of gel beads has different pore size and when they are put into a long enough column, it will be called gel column. When mobile phase containing different molecules is added into the column, molecules smaller than pore will pass through the gel beads by these small pathway while the bigger will pass through the interspace among gel beads, in this way, smaller molecules will take a longer and harder journey than bigger molecules out of the column.

Affinity chromatography

Affinity
(specific binding)

Material modified by specific ligand is used as stationary phase of AC. According to the affinity between molecule to be separated and specific ligand, in this way, stationary phase can capture target component in mobile phase, but let the other irrelevant pass through. Since the interaction between the affinity chromatography medium and the target molecule is reversible, the target molecule can be eluted from the affinity chromatography medium and finally collected in a concentrated, purified form.

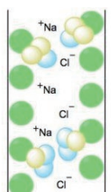
Ion exchange chromatography



Ion-exchange
(net charge)

Ion exchanger is used as stationary phase of IEC which separates molecules based on their respective charged groups. The total charge, charge density, and surface charge distribution of the biomolecules lead to differences in their ability to bind to the ion exchange medium. Due to the differences of binding force between ion of mobile phase and counter ion of stationary phase when reversible ion exchange proceeds.

Hydrophobic interaction chromatography



Hydrophobic Interaction
(hydrophobicity)

The hydrophobic chromatography medium is a catalyst that binds an alkyl or aromatic group to an inert spherical particle substrate. In order to provide a large internal surface, the substrate is porous and the ligand plays a vital role in the final hydrophobicity of the substrate. Stationary phase is modified with hydrophobic ligand in HIC which using it to absorb hydrophobic molecules in the mobile phase and the process is reversible. HIC is particularly suitable for the purification of samples after eluting by ammonium sulfate precipitation or high salt. High ionic strength enhances the hydrophobic interaction between the protein and the ligand of resins.

Product features

- **Excellent stability**
  Each batch of products have a large scale.
- **High resolution**
  The uniformity of particle size is good.
- **Various selectivity**
  Resins of variety, suitable for different samples.
- **Wild coverage**
  Products of a great variety with good abundance.
- **More flexibility**
  Customized special resins according to technology.

Product List

Gel filtration chromatography			
Cat. No.	**Product name**	**Flow rate**	**Average particle size**
E-CM-GF01	Focurose 4B	70-140 cm/h	90 μm
E-CM-GF02	Focurose 6B	100-200 cm/h	90 μm
E-CM-GF03	Focurose 4BB	1200-1800 cm/h	200 μm
E-CM-GF04	Focurose 6BB	1000-1500 cm/h	200 μm
E-CM-GF05	Focurose CL-4B	80-150 cm/h	90 μm
E-CM-GF06	Focurose CL-6B	100-200 cm/h	90 μm
E-CM-GF07	Focurose 4FF	300-600 cm/h	90 μm
E-CM-GF08	Focurose 6FF	250-600 cm/h	90 μm
E-CM-GF09	Focudex G-25 Medium	1-15 mL/min	100-300 μm
E-CM-GF10	Focudex G-75 Medium	≥40 cm/h	80-300 μm

Affinity chromatography			
Cat. No.	Product name	Flow rate	Binding capacity
E-CM-AF03	NHS Focurose 4FF	200-300 cm/h	16-23 μmol /mL (media)
E-CM-AF04	GST Focurose 4FF	200-300 cm/h	15-25mg (GST-tagged protein)/mL (medium)
E-CM-AF05	GST Focurose 4B	75-100 cm/h	15-25mg (GST-tagged protein)/mL (media)
E-CM-AF06	Ni Focurose 6FF (TED)	150-600 cm/h	20-30 mg (His-tagged protein)/mL (medium)
E-CM-AF07	Ni Focurose 6FF (IMAC)	300-600 cm/h	45 mg (His-tagged protein)/mL (medium)
E-CM-AF08	Ni Focurose 6FF (IDA)	300-600 cm/h	40-50 mg (His-tagged protein)/mL (medium)
E-CM-AF09	Co Focurose 6FF (IMAC)	300-600 cm/h	45 mg (His-tagged protein)/mL (media)
E-CM-AF11	Protein A Focurose 4HF	300-400 cm/h	~30 mg (Human IgG)/mL (media)
E-CM-AF12	Protein G Focurose 4FF	200-300 cm/h	~25 mg (Human IgG)/mL (media)
E-CM-AF13	Benzamidine Focurose 4FF(HS)	300-700 cm/h	25-50 mg (Trypsase)/mL (media)
E-CM-AF14	EAH Focurose 6FF	250-600 cm/h	0.4-0.5 mM Cl-/mL (media)
E-CM-AF15	Protein A Focurose 6FF	300-600 cm/h	0.4-0.6 mM Cl-/mL (media)

Ion exchange chromatography			
Cat. No.	Product name	Ionic capacity	Binding capacity
E-CM-IE01	SP Focurose 6FF	180-300 μmol H^+/mL (media)	100 mg Lysyme /mL (media)
E-CM-IE02	SP Focurose 6HP	200-300 μmol H^+/mL (media)	120 mg Lysyme /mL (media)
E-CM-IE03	SP Focurose HPR	180-280 μmol H^+/mL (media)	100 mg Lysyme /mL (media)
E-CM-IE04	SP Focurose 6HF	140-220 μmol H^+/mL (media)	120 mg Lysyme /mL (media)
E-CM-IE05	SP Focurose 6XL	180-250 μmol H^+/mL (media)	>160 mg Lysyme /mL (media)
E-CM-IE07	CM Focurose 6FF	90-150 μmol H^+/mL (media)	110 mg Lysyme /mL (media)
E-CM-IE08	CM Focurose 6HP	90-160 μmol H^+/mL (media)	95 mg Lysyme /mL (media)
E-CM-IE09	Q Focurose 6FF	180-360 μmol Cl^-/mL (media)	90 mg BSA/mL (media)
E-CM-IE10	Q Focurose 6HP	200-280 μmol Cl^-/mL (media)	130 mg BSA/mL (media)
E-CM-IE11	Q Focurose 6HPR	180-250 μmol Cl^-/mL (media)	120 mg BSA/mL (media)
E-CM-IE12	Q Focurose 6HF	160-220 μmol Cl^-/mL (media)	100 mg BSA/mL (media)
E-CM-IE13	Q Focurose 6XL	200-350 μmol Cl^-/mL (media)	>130 mg BSA/mL (media)
E-CM-IE15	DEAE Focurose 6FF	150-300 μmol Cl^-/mL (media)	110 mg BSA/mL (media)
E-CM-IE16	DEAE Focurose 6XL	460-510 μmol Cl^-/mL (media)	180 mg BSA/mL (media)
E-CM-IE17	DEAE Focurose 6HP	180-260 μmol Cl^-/mL (media)	90 mg BSA/mL (media)
E-CM-IE18	ANX Focurose 6FF	100-200 μmol Cl^-/mL (media)	80 mg BSA/mL (media)
E-CM-IE19	MMA Focurose 6FF	90-130 μmol Cl^-/mL (media)	≥75mg BSA/mL (media)
E-CM-IE20	MMA Focurose 6HP	130-200 μmol Cl^-/mL (media)	≥95mg BSA/mL (media)
E-CM-IE22	MMC Focurose 6FF	150-250 μmol H^+/mL (media)	≥75 mg BSA/mL (media)
E-CM-IE23	MMC Focurose 6HP	120-180 μmol H^+/mL (media)	≥60 mg BSA/mL (media)

Hydrophobic interaction chromatography			
Cat. No.	**Product name**	**Ligand density**	**Binding capacity**
E-CM-HI01	Phenyl Focurose 6FF (HS)	40-50 μmol/mL	40 mg (IgG)/mL (media)
E-CM-HI02	Phenyl Focurose 6FF (LS)	15-20 μmol/mL	15 mg (IgG)/mL (media)
E-CM-HI03	Phenyl Focurose 6HP	25-30 μmol/mL	30 mg (IgG)/mL (media)
E-CM-HI04	Phenyl Focurose 6BB	25-30 μmol/mL	25 mg (IgG)/mL (media)
E-CM-HI06	Butyl-S Focurose 6FF	10 μmol/mL	10-20 mg (Lysyme)/mL (media)
E-CM-HI07	Octyl Focurose 4FF	~5 μmol/mL	~10 mg (Lysyme)/mL (media)