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CaptureSelect™ Antibody Affinity Resins

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Product information

CaptureSelect™ affinity resins can be used for the purification and isolation of proteins and/or antibodies and antibody subtypes from complex sources such as plasma, serum, and cell culture supernatants.

WARNING! Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from **thermofisher.com/techresources**.

Specifications

All resins have a pressure limit of 3 bar.

CaptureSelect™ Affinity Resin	Binding specificity	Resin and particle size	Dynamic binding capacity per mL of resin
IgA	Human IgA (all subclasses)	Aldehyde-activated agarose, 70 µm	>8.0 mg IgA
IgA-CH1	CH1 domain of Human IgA (all subclasses)	Aldehyde-activated agarose, 70 µm	>6 mg IgA
IgG1 (Human)	Human IgG (subclass 1)	Aldehyde-activated agarose, 35 µm	>8 mg IgG1
IgG3 (Human)	Human IgG (subclass 3)	Aldehyde-activated agarose, 35 µm	>6 mg IgG3
IgG4 (Human)	Human IgG (subclass 4)	NHS-activated agarose, 90 µm	>6 mg IgG4
IgG-CH1	CH1 domain of human IgG	Aldehyde-activated agarose, 70 µm	>15 mg IgG
FcXL	Human IgG (all subclasses)	Aldehyde-activated agarose, 70 µm	>20 mg IgG
IgG-Fc (Multi-species) (Human, primates, rat, mouse, guinea pig, bovine, horse, goat, sheep)	IgG Fc	Aldehyde-activated agarose, 35 µm	>15 mg IgG
IgM	Human, mouse, and rat IgMs	NHS-activated agarose, 90 µm	>2.5 mg IgM
POROS™ IgM	Human, mouse, and rat IgMs	CDI-activated agarose, POROS™ 50 µm	>5.0 mg IgM
KappaXL	Human Igs (kappa light chain)	Aldehyde-activated agarose, 70 µm	>20 mg IgG
LC-kappa (Murine)	Murine Igs (kappa light chain)	Aldehyde-activated agarose, 35 µm	>10 mg IgG
LC-lambda (Human)	Human Igs (lambda light chain)	NHS-activated agarose, 90 µm	>10 mg IgG
LC-lambda (Mouse)	Mouse Igs (lambda light chain)	Aldehyde-activated agarose, 70 µm	>10 mg IgG
LC-lambda (Rat)	Rat and guinea pig Igs (lambda light chain)	Aldehyde-activated agarose, 70 µm	>10 mg IgG
LC-lambda (Ungulate) (Hoofed animals such as horse, sheep, cow)	Ungulate Igs (lambda light chain)	Aldehyde-activated agarose, 35 µm	>10–15 mg IgG, depending on species

For Research Use Only. Not for use in diagnostic procedures.

Conditions for use

All resins have a flow rate of 150 cm/h.

CaptureSelect™ Affinity Resin	Equilibration/wash buffer	Elution buffer
IgA	PBS, pH 7.2–7.4 (physiological pH and ionic strength)	0.1 M Glycine, pH 3.0
IgA-CH1		Neutral pH: 20 mM Tris, 2.0 M $MgCl_2$, pH 7.0 Acidic: 0.1 M Glycine, pH 3.0
IgG1 (Human)		0.1 M Glycine, pH 3.0
IgG3 (Human)		0.1 M Glycine, pH 3.0
IgG4 (Human)		0.1 M Glycine, pH 3.0
IgG-CH1		0.1 M Glycine, pH 3.0
FcXL		Neutral pH: 20 mM Tris, 1.0 M $MgCl_2$, 40% propylene glycol, pH 5.0–7.0 Acidic: 0.1 M Glycine, pH 4.0–3.0
IgG-Fc (Multi-species)		0.1 M Glycine, pH 3.0
IgM		0.1 M Glycine, pH 3.0
POROS™ IgM		0.1 M Glycine, pH 3.0
KappaXL		0.1 M Glycine, pH 4.0–3.0
LC-kappa (Murine)		0.1 M Glycine, pH 3.0
LC-lambda (Human)		0.1 M Glycine, pH 3.0–2.0
LC-lambda (Mouse)		0.1 M Glycine, pH 3.0
LC-lambda (Rat)		0.1 M Glycine, pH 3.0
LC-lambda (Ungulate)		0.1 M Glycine, pH 3.0

Instructions for use

1. Pack the column.
2. Equilibrate with 5 to 10 column volumes (CV) of the equilibration/wash buffer recommended in “Conditions for use” on page 2.
3. Prepare and load the sample.
   The sample loading volume depends on the concentration of the target molecule and the dynamic binding capacity of the resin. See “Specifications” on page 1.
   - Dissolve, dilute, or exchange samples into the equilibration buffer. This is particularly important for large samples (greater than 25% of the column volume).
   - Centrifuge and filter samples (0.22 or 0.45 µm) before injection.
4. Wash with 5 to 10 CV of the equilibration/wash buffer recommended in “Conditions for use” on page 2, or until you see a stable baseline.
5. Elute with 5 to 10 CV of the elution buffer recommended in “Conditions for use” on page 2, or until you see a stable baseline.
6. Re-equilibrate with 5 to 10 CV of the equilibration/wash buffer recommended in “Conditions for use” on page 2, or until you see a stable baseline.
7. Re-equilibrate in equilibration/wash buffer.
   If the column will not be used immediately, store the resin in 20% ethanol at 4°C (39°F), stable for up to 1 year.

Example application with CaptureSelect™ IgA affinity resin

Refer to **www.lifetechnologies.com/captureselect** for additional examples.

Resin: IgA

Sample: Human serum (200 µL)

Sample preparation: Loaded on 400-µL CaptureSelect™ IgA affinity resin

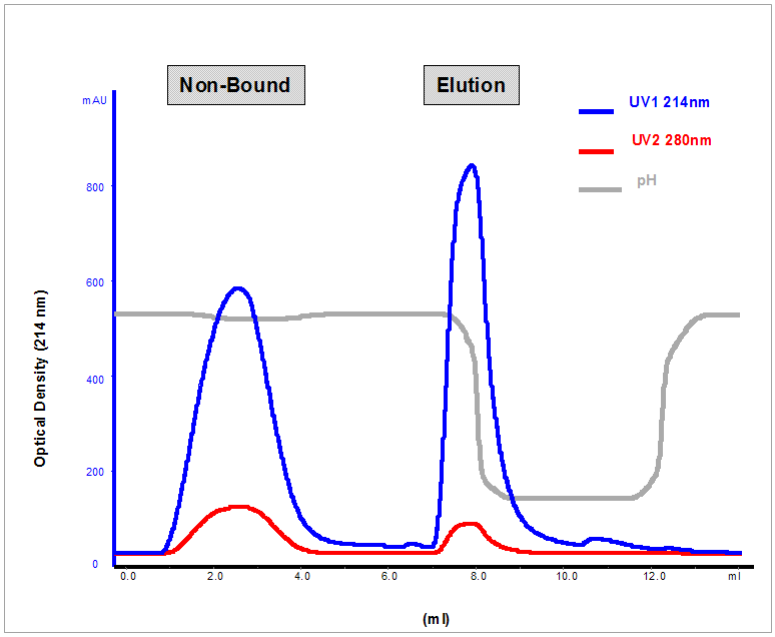
Equilibration and wash buffer: PBS, pH 7.4

Elution buffer: 0.1 M Glycine, pH 3.0

Flow: 150 cm/h

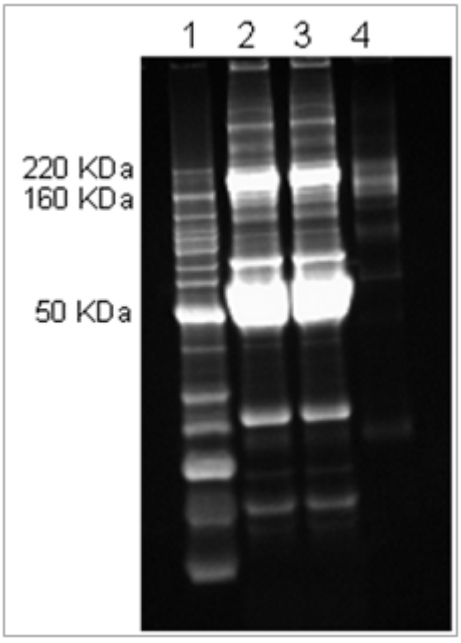
Elution fractions neutralized with 0.1 volume of 1 M Tris, pH 8.0

Starting material, flow through, and elution fractions analysis: SYPRO™ Ruby gel-stained non-reduced 4–20% acrylamide Tris-Glycine gel



1 Cycle is:

- 10 column volumes (CV) equilibration
- Sample loading
- 10 CV wash out unbound sample
- 5 CV elution
- 10 CV re-equilibration



1: Molecular weight marker
2: Human serum
3: Flow through IgA affinity resin
4: Elution IgA affinity resin

Ordering information

CaptureSelect™ Affinity Resin	Cat. no.
IgA	194288005 (5 mL) 194288010 (10 mL) 194288050 (50 mL)
IgA-CH1	194311005 (5 mL) 194311010 (10 mL) 194311050 (50 mL)
IgG1 (Human)	191303005 (5 mL) 191303010 (10 mL) 191303050 (50 mL)
IgG3 (Human)	191304005 (5 mL) 191304010 (10 mL) 191304050 (50 mL)
IgG4 (Human)	290005 (5 mL) 290010 (10 mL) 290050 (50 mL)
IgG-CH1	194320005 (5 mL) 194320010 (10 mL) 194320050 (50 mL)
IgG-CH1 pre-packed columns	494320001 (five 1-mL columns) 494320005 (one 5-mL column)
FcXL	194328005 (5 mL) 194328010 (10 mL) 194328050 (50 mL)
FcXL pre-packed columns	494328001 (five 1-mL columns) 494328005 (one 5-mL column)
IgG-Fc (Multi-species)	191285505 (5 mL) 191285510 (10 mL) 191285550 (50 mL) 1912855250 (250 mL) 1912855500 (500 mL)
IgM	289005 (5 mL) 289010 (10 mL) 289050 (50 mL)
POROS™ IgM	195289005 (5 mL) 195289010 (10 mL) 195289050 (50 mL)
KappaXL	194321005 (5 mL) 194321010 (10 mL) 194321050 (50 mL)
KappaXL pre-packed columns	494321001 (five 1-mL columns) 494321005 (one 5-mL column)
LC-kappa (Murine)	191315005 (5 mL) 191315010 (10 mL) 191315050 (50 mL)
LC-lambda (Human)	084905 (5 mL) 084910 (10 mL) 084950 (50 mL)
LC-lambda (Mouse)	194323005 (5 mL) 194323010 (10 mL) 194323050 (50 mL)
LC-lambda (Rat)	194324005 (5 mL) 194324010 (10 mL) 194324050 (50 mL)
LC-lambda (Ungulate)	191314005 (5 mL) 191314010 (10 mL) 191314050 (50 mL)

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  - Product FAQs
  - Software, patches, and updates
- Order and web support
- Product documentation, including:
  - User guides, manuals, and protocols
  - Certificates of Analysis
  - Safety Data Sheets (SDSs; also known as MSDSs)

  Note: For SDSs for reagents and chemicals from other manufacturers, contact the manufacturer.

For more information

For more information on CaptureSelect™ and POROS™ products, go to **www.lifetechnologies.com/captureselect**.

Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale found on Life Technologies' website at **www.lifetechnologies.com/termsandconditions**. If you have any questions, please contact Life Technologies at **www.lifetechnologies.com/support**.

The information in this guide is subject to change without notice.

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