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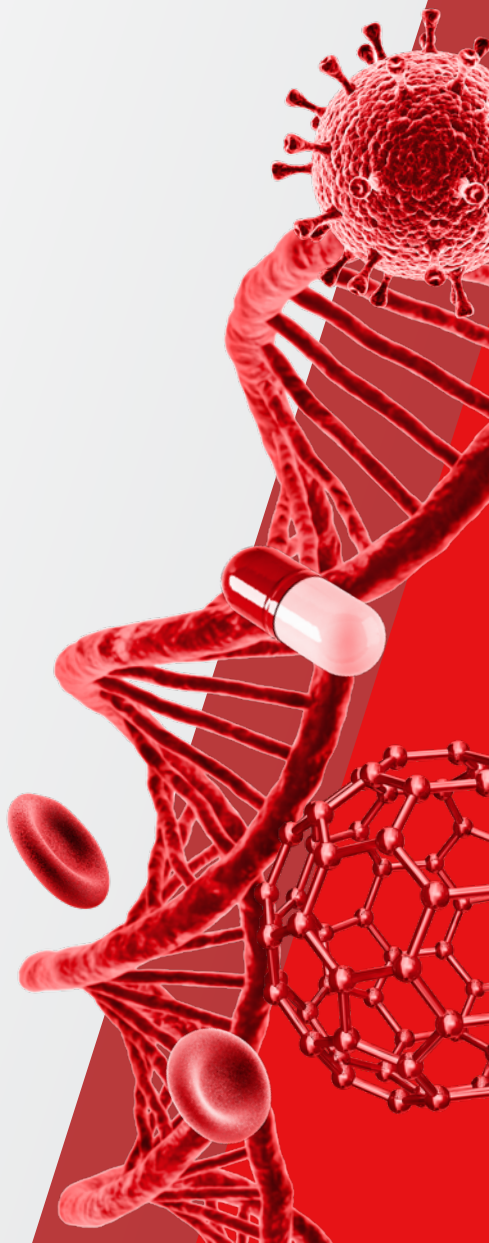
CaptureSelect LambdaXP Affinity Matrix – New Product Introduction

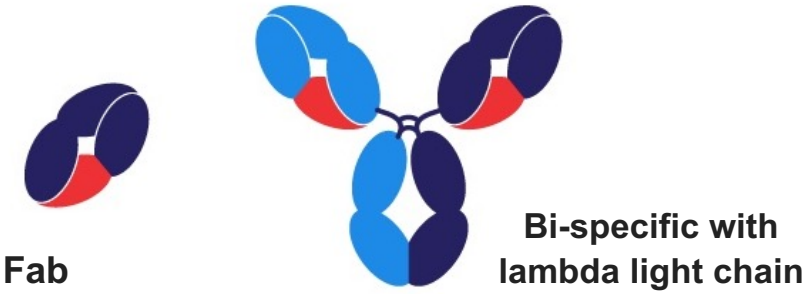
New product introduction – August 2021



The world leader in serving science

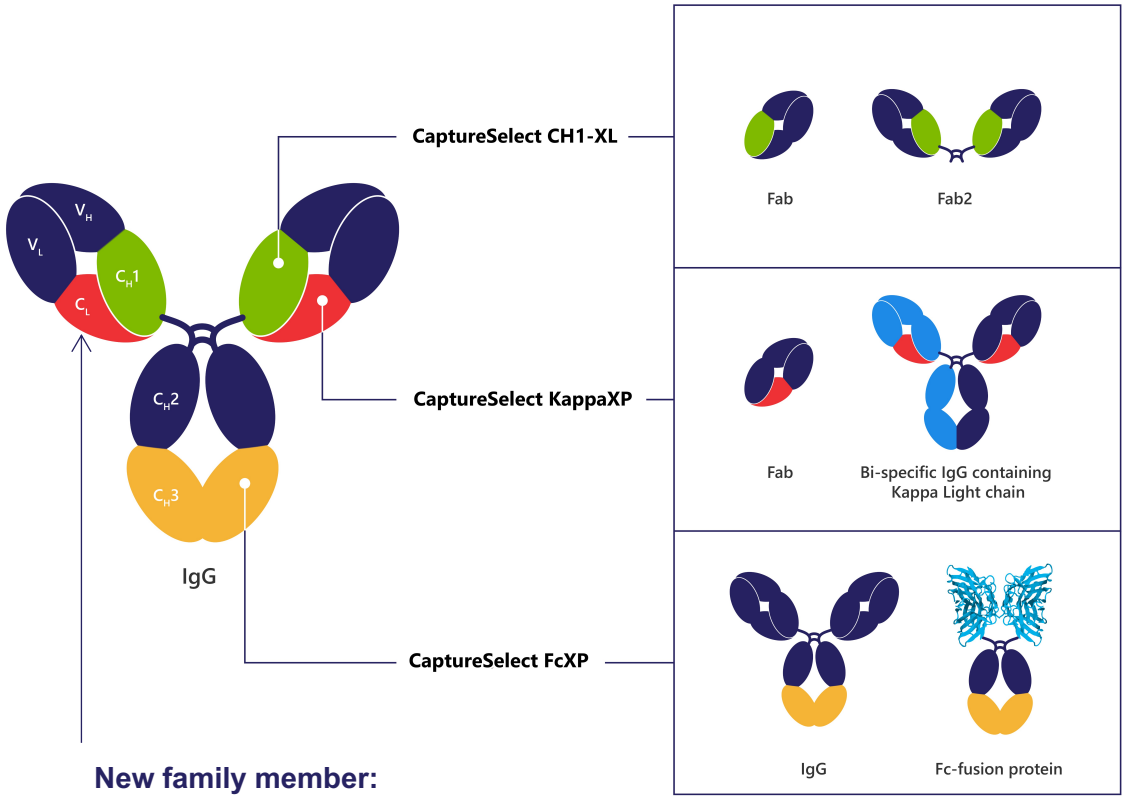
Thermo Scientific CaptureSelect LambdaXP Resin

Next-generation lambda light chain binder



- Generic: 100% lambda subtype coverage for all immunoglobins containing a lambda light chain
- Specific to human, does not bind to bovine antibodies
- High binding capacity: >35 g/L IgG
- Small elution pool volume at pH 3.5 – 4
- Excellent scalability Animal derived free product

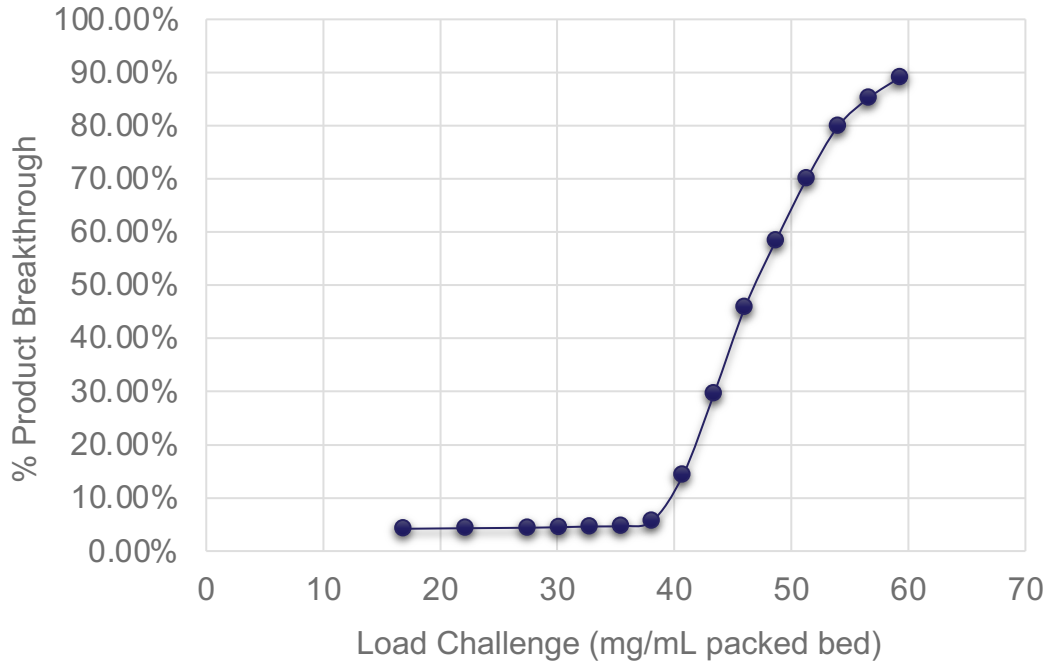
CaptureSelect™ resin and antibody selectivity



New family member:
CaptureSelect Lambda XP

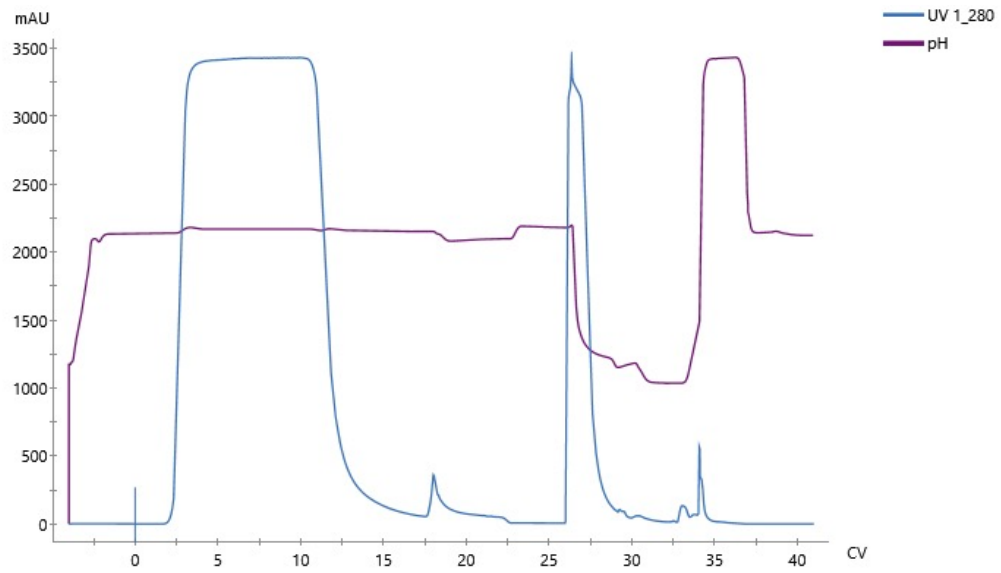
Bi-specific antibody purification using LambdaXP resin

Dynamic Binding Capacity at 4 min residence time



- High Dynamic Binding Capacity at 10% breakthrough ~40 mg/mL

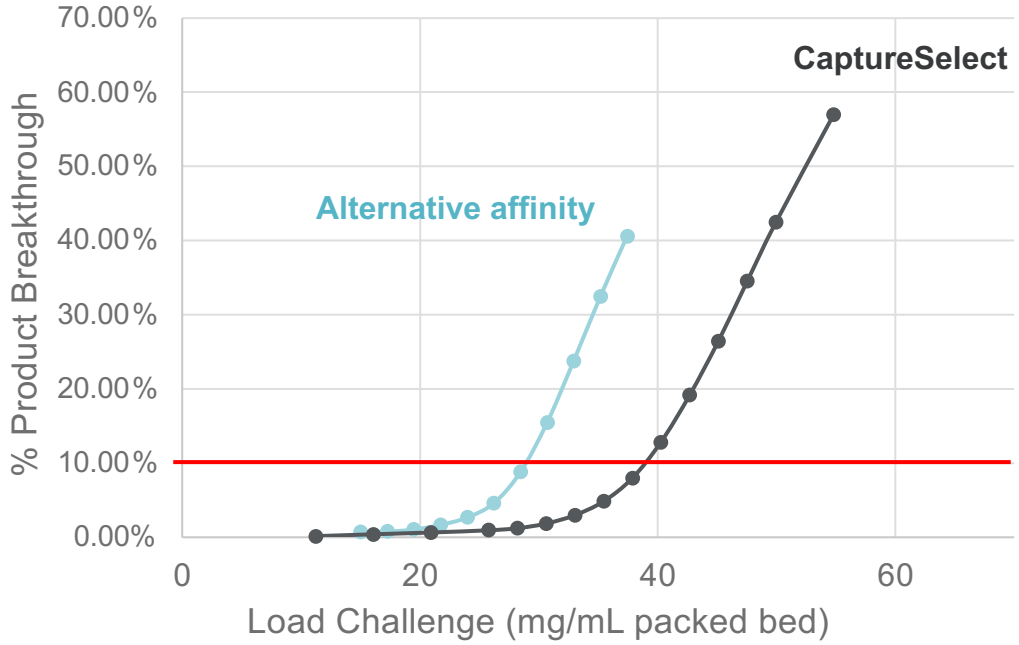
Elution performance – 25 mM sodium acetate



- Efficient elution (3 CV) of Bi-specific antibody at pH 3.6 using a load concentration of 32 mg/mL

CaptureSelect LambdaXP - superior performance compared to alternative affinity resin

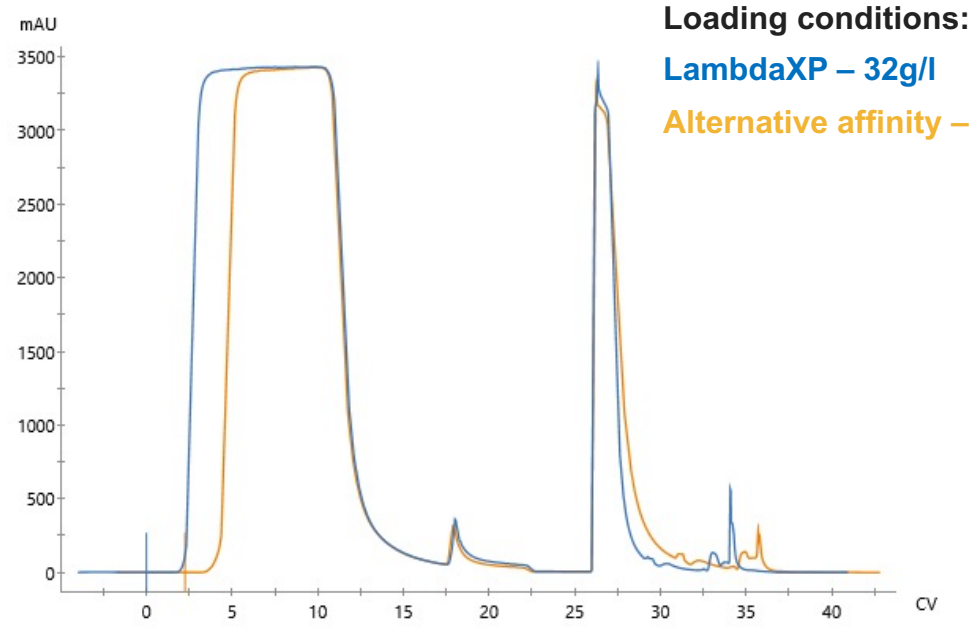
Breakthrough analysis - comparison



The CaptureSelect™ affinity matrix shows improved binding capacity compared to the alternative affinity resin

Load: Bi-specific antibody – 4 min residence time

Elution performance – comparison



The CaptureSelect™ affinity matrix shows improved elution efficiency compared to the alternative affinity resin

Load: Bi-specific antibody – elution: 25mM sodium acetate, pH 3.6

Process performance compared to alternative affinity resin

Media	Load Challenge (g/L)	Yield (%)	Aggregate by HP-SEC (%)	Fragment by HP-SEC (%)	HCP (ng/mg)	DNA (ng/mg)	0.5-0.5 OD Elution CV
Alternative affinity resin	24	89	1.2	1.0	1951	< 5.6 E-5	4.5
CaptureSelect™ Lambda XP	32	89	1.3	1.4	1662	< 1.2 E-4	3.0

- Elution with 25mM sodium acetate, pH 3.6

The CaptureSelect LambdaXP resin shows superior performance and impurity clearance compared to the alternative affinity resins

CaptureSelect LambdaXP advised cleaning strategy

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Acidic strip after every run

- 0.1-0.5 M Citric Acid pH 2 (has chelating properties)
- When preferred, other acids can be used

Additional cleaning/sanitization steps (when needed)

- Process optimization mainly depending on type of feed
    - Cleaning after every run, or after 2-5 runs with 20 mM NaOH
- Sanitization with PAB (phosphoric acid, acetic acid, benzyl alcohol) as alternative for NaOH

CaptureSelect LambdaXP resin characteristics and available products

Purification of Ig's, Fab, and Fab2 fragments directly from complex source materials in a single step with high purity and yield.

MAIN RESIN CHARACTERISTICS

Matrix: agarose-based, epoxide activated
Average particle size: 65 ± 10 µm
Ligand: CaptureSelect™ LambdaXP affinity ligand
Ligand immobilization method: Epoxide immobilization of the ligand
Binding capacity: >35 g IgG per liter resin depending on flow rate, column height, and residence time
Elution conditions: 25 mM sodium acetate, pH 3.5
Flow characteristics: 150–300 cm/h (up to 2 bar)
Formulation buffer: 20%(v/v) ethanol

SKU	Product
2943752005	CS LambdaXP AFF MTR 5 ML
2943752010	CS LambdaXP AFF MTR 10 ML
2943752050	CS LambdaXP AFF MTR 50 ML
1943752250	CS LambdaXP AFF MTR 250 ML
194375201L	CS LambdaXP AFF MTR 1 L*
194375205L	CS LambdaXP AFF MTR 5 L*
810375201	CS LambdaXP Leakage Elisa -1 ASSAY**
810375210	CS LambdaXP Leakage Elisa -10 ASSAY**
5943752001	CS LambdaXP MiniChrom 1 ML***
5943752005	CS LambdaXP MiniChrom 5 ML***

* *Products come with full regulatory support (RSF) enabling use in commercial manufacturing*
** *Available from September*
*** *Available from October*

Thank you

For Research Use or Further Manufacturing. Not for use in diagnostic procedures