

Single-Step Single-Use Protein Depletion for Proteomics Sample Preparation

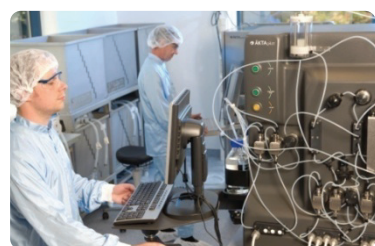


BAC BV

BAC BV, the leading provider of affinity purification technology, has a platform approach for developing new affinity purification products. The technology has proven itself with products on the market for a wide variety of biotherapeutic compounds, ranging from antibodies and antibody fragments, recombinant and plasma proteins to viral particles.

CaptureSelect® purification products that have been developed offer numerous advantages such as:

- an increase in overall yield and product purity
- a reduction of process steps thereby lowering the cost of goods
- efficient clearance of host cell impurities due to high selectivity
- the possibility to protect the biopharmaceutical using mild elution conditions



Proteomics Toolbox

CaptureSelect Proteomics Toolbox

By utilizing the unique properties of CaptureSelect technology for the creation of highly-specific ligands, BAC combines them ligands to offer affordable, single-step and single-use products for effective protein depletion.

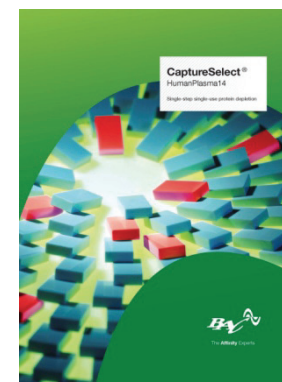
CaptureSelect HumanPlasma14

CaptureSelect HumanPlasma14 depletes the top 14 abundant proteins in human blood plasma:

Albumin, IgG, IgM, IgA, IgE, IgD and free light chains, Transferrin, Fibrinogen, Alpha-1 Antitrypsin, Apolipoprotein A1, Alpha-2 Macroglobulin, Alpha-1 acid Glycoprotein and Haptoglobin.

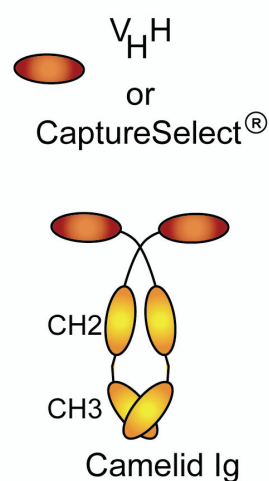
HSA, AAT, CSF,...

Next to the HumanPlasma14 BAC also offers depletion products for Human Serum Albumin and Alpha-1 Antitrypsin. BAC is currently developing a new product line for the depletion of CSF (cerebral spinal fluid).



CaptureSelect® Affinity Ligands

Camelid antibodies lack light chains and the entire CH1 domain and as such have only one single variable domain (VHH) by which antigens are bound (Figure). The VHH domain is named CaptureSelect® ligand.



Characteristics of CaptureSelect:

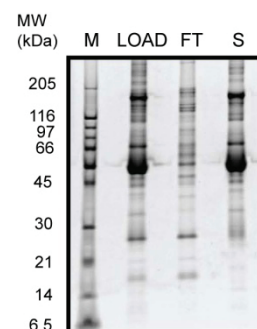
- 12-15 kDa fragment
- Tunable specificity
- Screening Operating Conditions
 - Binding / Elution / Stability
- Suitable for both scavenging and purification
- No animal-derived components
 - Production in Yeast
- Ability to work on any Solid Support

CaptureSelect HumanPlasma14

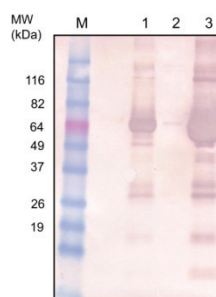
The image below shows a very efficient depletion of human plasma. The flow through fraction following a single-step removal shows that there is hardly any Albumin or Ig's left.

SDS-PAGE analysis of the CaptureSelect® HumanPlasma14 depletion of abundant proteins from human plasma.

M: P-6649 molecular marker
LOAD: 100x diluted human plasma
FT: plasma flow-through
S: stripping of bound plasma fraction
The protein fractions were stained with Sypro ruby dye.

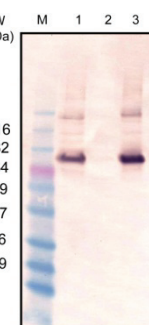


Following depletion, samples were further analyzed by Western Blot. Examples below show the removal of human serum albumin and alpha-1 antitrypsin from human plasma. Both show a very good depletion in a single run.



WB developed with Anti albumin antibodies

M. Benchmark Prestained Marker
1) 100x diluted Human Plasma
2) Flow through pool
3) Elution pool



WB developed with Anti AAT antibodies

M. Benchmark Prestained Marker
1) 100x diluted Human Plasma
2) Flow through pool
3) Elution pool

Products & Services



Custom ligand design

A unique platform for the development of ligands for biotherapeutic purification

- Developing new products with biopharmaceutical companies
- Fee for service on FTE and Milestone basis, licensing



CaptureSelect for life science research

Providing new specificities and formats for bench-scale purification, proteomics and analysis

- Selling finished products via the web www.captureselect.com/shop



CaptureSelect for Bioprocess

Affinity products offered in partnership with resin suppliers

- Antibody purification (e.g. KappaSelect, IgSelect)
- Coagulation factors: e.g. FVIII (VIIISelect), FIX, FVII
- Blood protein: AAT (Alpha-1 Antitrypsin Select)
- Viruses: AAV (AVB Sepharose HP)

Simplify your options with CaptureSelect HumanPlasma14:

- > 99.9% albumin removal and >99% of all Ig's (including IgG, A, M etc)
- Removal of >99% of each individually targeted protein from serum,
- No non-specific binding since the ligands are specific to each targeted plasma protein
- No batch-to-batch variation of the depletion products
- Highest reported loading possible as compared with competing products (20/30µl plasma/serum per ml HumanPlasma14 resin)
- Single-use as opposed to multi-use with all competing products
- Customizable to fit your needs (e.g. isolation of untouched Ig-pool for vaccine research)

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Corporate website: <http://www.bacbv.com>

Product information: <http://www.captureselect.com>