



## Biotech Support Group LLC.

Biotech Support Groups is a specialty biotechnology company providing products that fuel experiments by scientific researchers around the world. Our emphasis is on research and development for the creation of next generation of genomics and proteomics reagents and services for life sciences research and drug discovery.

### Company Information:

Established in 1995, Biotech Support Group is a New Jersey based company which produces licensed and proprietary products for genomics and proteomics research.

Currently, Biotech Support Group and ProFACT Proteomics Inc., are collaborating on the development of new products used in serum protein profiling for proteomic analysis. In addition, we also develop products specifically targeted for proteomics and genomics.

### Biotech Support Group specializes in:

- Proteomic and Genomic Sample Preparation and Enrichment Products, & Polymer Coated Affinity Silica Matrices.
- Services supporting proteomics, protein modification (i.e. PEG) & immobilization, and bioseparations.

### Company Highlights

- Biotech Support Group has trusted brand of products for genomics, proteomics that are used by molecular biology researchers, clinical scientists, biotechnology professionals, at government labs, academic universities, medical schools and companies in the life science sector for biotechnology and pharmaceutical product development.
- Biotech Support Group is a leader in research consumables and products for hemoglobin, albumin, lipid, glycoprotein, viral genomics and proteomics sample preparation.
- Biotech Support Group 's products have use in numerous clinical applications and offers expert services in biotechnology experimental design for hemoglobin, albumin, lipid, glycoprotein, viral genomics and proteomics sample preparation



## Industry-Leading Technologies

Our portfolio of highly respected technologies includes:

- Albumin Depletion Kit from Serum or Plasma
- Cyclic Nucleotide Phosphodiesterase Enrichment Reagent
- Glycoprotein Enrichment Reagent for Serum/Plasma
- Hemoglobin Depletion from Erythrocytes
- Hemoglobin Depletion from Hemolyzed Serum or Plasma.
- Hemovoid Blood Card Reagent
- Kinase (& ATP binding proteins) enrichment reagent
- Lipid adsorption and clarification reagent
- Protein Removal for Drug Screening
- Protein Removal & Enrichment of Metabolites/Analytes From Serum or Plasma
- SDS and Non-ionic Detergent (eg. Triton) Removal
- Virus and Viral Component Isolation
- Polymer Coated Silica Affinity Matrices
- Polymer Coated Silica Affinity Matrices
  - Immobilization & Pre-Immobilized Affinity Matrices
- Genomic Sample Preparation Products
  - High-Throughput BAC & Plasmid DNA Isolation Kits
  - High-Throughput Genomic DNA Isolation Kit
  - Superior Substitute to Phenol/Chloroform
- Proteomic Profiling Analysis Service
  - SeraFile 10
- PROspector – Differentiated Subproteomes and Enrich Functional Biomarkers
- Large Scale Chromatography Media for Proteins
  - Polymer Coated Hydrophobic Support
  - Polymer Coated Ion Exchange Support
- Analytical and Semi-preparative Size Exclusion



## [DiscoverPrep - Proteomic Sample Preparation](#)

### **Albumin Depletion Kit from Serum or Plasma**

[AlbuSorb™ Albumin Depletion Kit](#)  
[AlbuVoid™ - Albumin Depletion Kit from Serum or Plasma](#)  
[AlbuTrial Kit™ - AlbuVoid™ and AlbuSorb™](#)

### **Urine Protein Enrichment For Urine Proteomics & Biomarkers**

[UPCK™ Urine Protein Concentration Kit](#)

### **Hemoglobin Removal/Depletion**

[HemogloBind™ Hemoglobin Removal and Capture](#)  
[HemoVoid™ - Hemoglobin Depletion Reagent - New!](#)  
[HemoTrial™ Kit - HemogloBind™ and HemoVoid™](#)  
[HemoVoid™ - Blood Card Reagent](#)

### **Lipid adsorption and clarification reagent**

[Cleanascite™ Lipid Removal and Clarification](#)

### **Protein Removal for Drug Screening & Metabolomics**

[BindPro™ For Drug Binding/Screening, Metabolomics and Protein Recovery](#)  
[BindPro™ Metabolomics - Protein Removal & Enrichment of Metabolites/Analytes From Serum or Plasmad](#)

### **SDS and Non-ionic Detergent (eg. Triton) Removal**

[SurfactAway™ Triton Removal](#)  
[SurfactAway™ SDS Removal](#)

### **Virus and Viral Component Isolation**

[Viraffinity™ - Virus and Viral Component Isolation](#)  
[ViraPrep™ Lambda](#)  
[ViraPrep™ Mammal](#)

### **Glycoprotein Enrichment Reagent for Serum/Plasma**

[GlycoEnrich™](#)

### **Kinase (& ATP binding proteins) enrichment reagent**

[KinaSorb™ Kinase \(& ATP binding proteins\) enrichment reagent](#)

### **Cyclic Nucleotide Phosphodiesterase Enrichment Reagent**

[PDEnRich™ Cyclic Nucleotide Phosphodiesterase Enrichment Reagent](#)

### [Protein Removal Reagent/DNA Enrichment & Isolation](#)

[ProCipitate™](#)

### **Non Hazardous Substitute to Phenol/Chloroform**

## [Genomic Sample Preparation Products](#)

### **High-Throughput BAC & Plasmid DNA Isolation Kits**

[ProPrep™ BAC Mini 1000](#)  
[ProPrep™ BAC Mini 100](#)  
[ProPrep™ BAC 96](#)  
[ProPrep™ Omni - for BAC & Plasmids](#)  
[ProPrep™ BAC Omni 1000](#)  
[ProPrep™ BAC Omni 200](#)  
[ProPrep™ Plasmid 60x96 \(5760 preps\)](#)  
[ProPrep™ BAC 960](#)  
[ProPrep™ Plasmid 4x96 \(384 preps\)](#)

### **High-Throughput Genomic DNA Isolation Kit**

[ProPrep™ Genomic XL-2](#)  
[ProPrep™ Genomic Blood Card 96](#)  
[ProPrep™ Genomic XL - for SNP Analysis](#)  
[ProPrep™ Genomic Blood Card 960](#)  
[ProPrep™ Genomic SM](#)  
[ProPrep™ Genomic 960](#)  
[ProPrep™ Genomic 96](#)  
[ProPrep™ Genomic XL-10](#)  
[ProPrep™ Genomic SM-50](#)



## [Polymer Coated Silica Affinity Matrices](#)

### **Immobilization & Pre-Immobilized Affinity Matrices**

[NuGel™ Poly-Epoxy](#)  
[NuGel™ Poly-Amine](#)  
[NuGel™ Poly-Aldehyde](#)  
[NuGel™ Poly-Hydroxy](#)  
[NuGel™ Poly-Diazo](#)  
[NuGel™ Poly-Carboxy](#)  
[NuGel™ Poly-NHS](#)  
[NuGel™ Concanavalin A](#)  
[NuGel™ Nickel](#)  
[NuGel™- Amine](#)  
[NuGel™ Glutathione](#)

## [Large Scale Chromatography Media for Proteins](#)

### **Polymer Coated Hydrophobic Support**

[NuGel™ P-Phenyl](#)  
[NuGel™ P-Octyl](#)  
[NuGel™ P-Butyl](#)

### **Polymer Coated Ion Exchange Support**

[NuGel™ P-SP\(strong cation exchange support\)](#)  
[NuGel™ P-DE\(weak anion exchange support\)](#)

## [Proteomic Profiling Analysis Service](#)

### **SeraFile 10**

[SeraFile 10™](#)

## [Differentiated Subproteomes and Enrichment of Functional Biomarkers](#)

### **Prospector**

[PROspector - Differentiated Subproteomes and Enrich Functional Biomarkers](#)

## [Accessories](#)

### **Albuvoid Buffers**

[AlbuVoid Binding Buffer AVBB™](#)  
[AlbuVoid Wash Buffer AVWB™](#)  
[AlbuVoid Elution Buffer AVEB™](#)

### **Hemovoid Buffers**

[HemoVoid Binding Buffer HVBB™](#)  
[HemoVoid Wash Buffer HVWB™](#)  
[HemoVoid Elution Buffer HVEB™](#)

### **Tube Filter Pack**

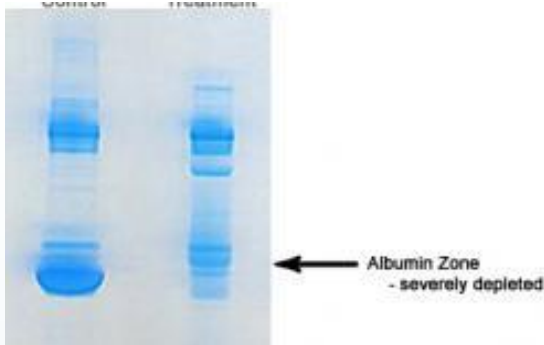
[Corning® Spin-X Filter](#)

## [Biological Separations Size Exclusion](#)

**Analytical and Semi-preparative Size Exclusion**  
[Sepax Zenix™ SEC Column](#)  
[Sepax SRT® SEC Column](#)

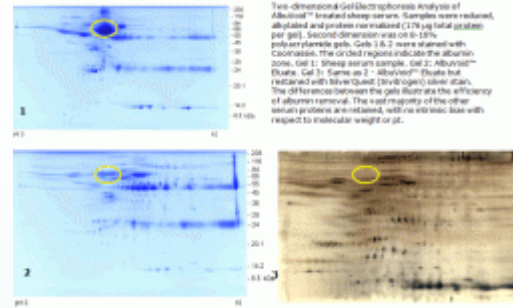


### AlbuSorb™ Albumin Depletion Kit



- Removes 30 mg albumin/ml, > 90%
- Affinity-type equivalence, virtually no cross-reactivity with other proteins
- Simple, just weigh powder, condition the sample, and separate
- Economical new surface technology, not based on affinity chromatography
- Albusorb™ is an albumin depletion reagent supplied as a kit with necessary buffers. With 25ul of starting sample, the yield of albumin depleted serum protein is 0.1-0.2 milligrams. Albusorb™ binds albumin from serum or plasma and is compatible with downstream proteomics methods such as protein array pixelation, 1D and 2D gel electrophoresis, LC/MS, and MALDI-TOF MS. Samples are also prepared for biomarker discovery, toxicological studies for new drugs, enzyme assays, protein profiling using SELDI analysis and cytokines research.
- AlbuSorb™ binds to albumin, and serum proteins flow through. Removal of albumin allows enhanced detection of low abundance proteins. AlbuSorb™ comes from a silica-based, separation platform utilizing a new combination of surface microenvironments substituted with low molecular substrates that feature drug-binding motifs. Unlike immuno-affinity, the surfaces utilized are disposable eliminating cycle to cycle variance and cross-contamination.
- Biotech Support Group also has AlbuVoid™ for albumin depletion plus low abundance serum protein enrichment.

### AlbuVoid™ - Albumin Depletion Kit from Serum or Plasma



#### Albumin Depletion Plus Low Abundance Serum Protein Enrichment

- Albumin voids in flow-through >95%, with <30 minute bind/wash/elute protocol
- Low abundance enrichment equivalent or better than hexa-peptides or antibodies
- Disposable, cost-effective, no column regeneration or cross-contamination
- Mild elution maintains tertiary structure and simple transfer to secondary analysis
- The eluted fractions retain their enzymatic and biological activity
- Removes albumin from many species including human, sheep, bovine, goat, rat, and calf.

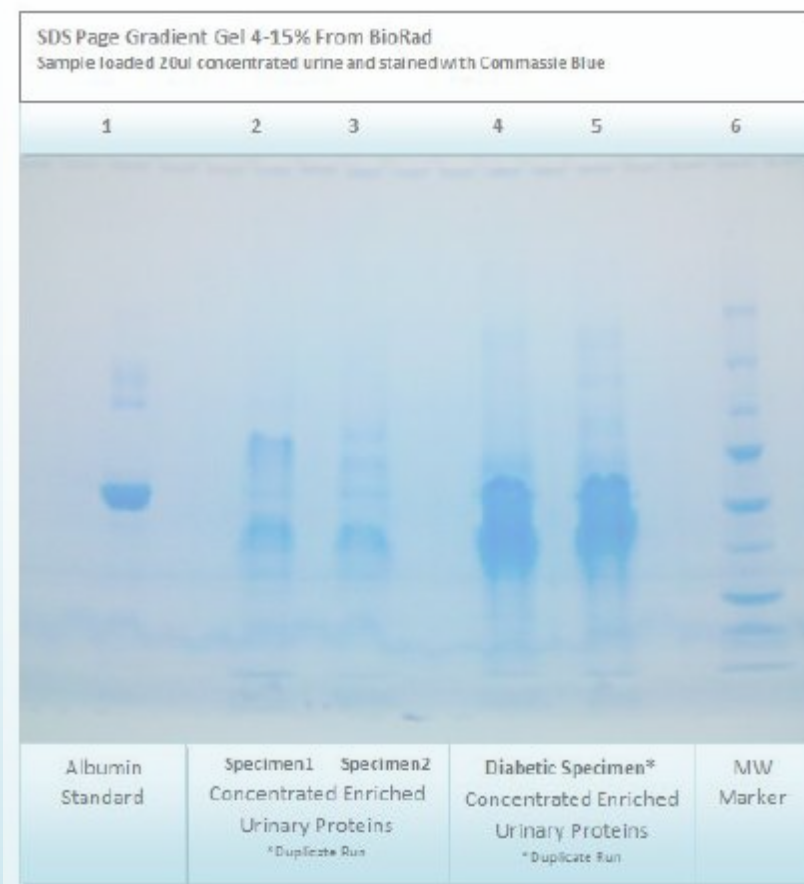
AlbuVoid™ a silica-based protein enrichment matrix, removes albumin from serum and plasma samples while concentrating low abundance, and/or low molecular weight proteins. The AlbuVoid™ protocol uses mild buffers; the protocol conditions are so gentle that native enzyme activity is retained in elution fractions. AlbuVoid™ considerably enhances resolution of proteins below 50 kD, a limitation of alternate enrichment protocols.

AlbuVoid™ derives from a silica-based library of individual mixed-mode ligand combinations (ionic, hydrophobic, aromatic, polymer). The library was designed to facilitate weak binding of proteins, allowing for rapid elution from the matrix without any foreknowledge of the variety of proteins contained in the starting sample. In contrast to traditional chromatographic methods, our weak binding approach is more selective, presumably because of a lower degree of non-specific protein-protein interactions at the surface interface. In the case of AlbuVoid™, a single, mixed-mode ligand architecture was selected empirically from the library. Because of its specific binding properties, AlbuVoid™ depletes high abundance proteins in serum like albumin and immunoglobulins while improving the resolution of less abundant serum proteins.



## UPCK™ Urine Protein Concentration Kit

### *Urine Protein Enrichment For Urine Proteomics & Biomarkers*



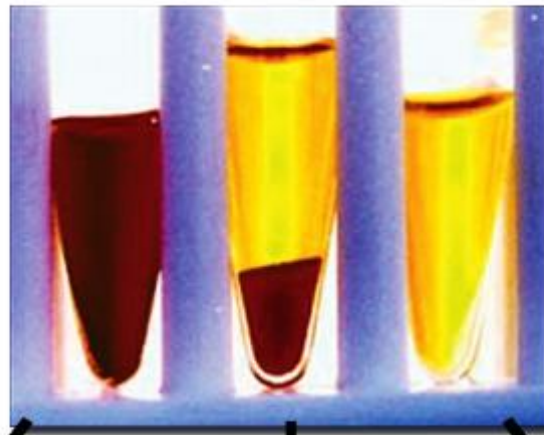
- <60 minute bind, wash and elute protocol
- Linearly scaleable up or down.
- Mild elution maintains tertiary structure and simple transfer to secondary analysis
- Applicable to 1 & 2 DE, proteomics, mass spec, and microarrays
- The eluted fractions retain their enzymatic and biological activity
- Compatible with 96 well high throughput format

UPCK™ Urine Protein Concentration Kit is a polymeric silica-based protein enrichment matrix designed as an alternative to ultrafiltration and solvent precipitation. UPCK™ Urine Protein Concentration Kit has been especially optimized for proteomic studies of urine proteins.



## HemogloBind™

Hemoglobin Capture Reagent



Hemolyzed Serum,  
*prior to HemogloBind™*  
treatment

After treatment of HemogloBind™  
**Note:** >90% of the hemolysis  
has been removed

Normal Serum,  
as a Control

**Applications include:**

Blood Substitutes  
Enzyme Recovery  
Serum Clarification

Hemoglobin Isolation  
Analytical Protocols  
Thalassemia Variants

- Has a high degree of specificity for hemoglobin
- Suitable for serum/plasma or erythrocyte proteomics
- Distinguishes between hemoglobin variants
- Applications in enzyme recovery and analytical interferences

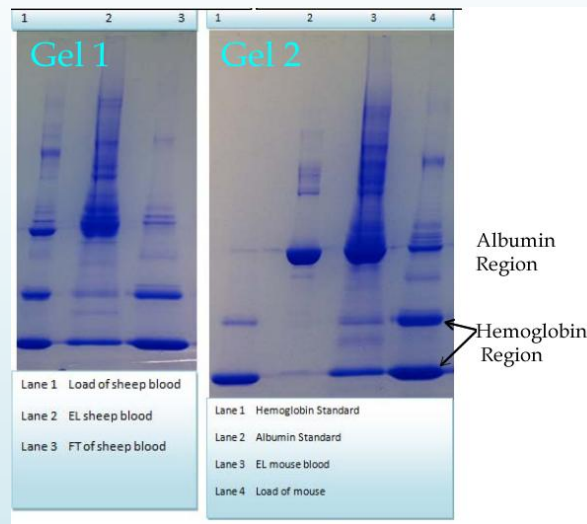
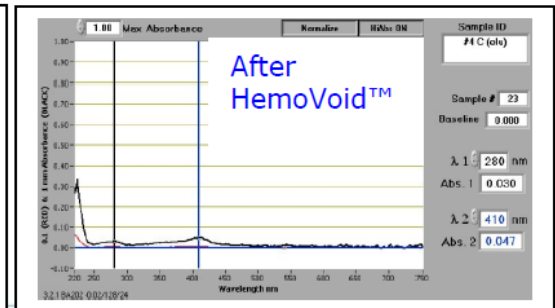
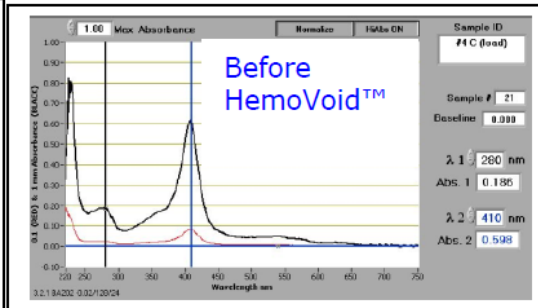
Poly-electrolytes are polymers with repeating units of stationary charges. HemogloBind™ comes from a class of solid-phase, or surface-based, elastomeric poly-electrolytic surfaces that bind proteins through an empirically derived chemistry combining elements of polymer composition, cross-linking architecture and charge properties. As with bio-polymers like DNA and Heparin, governing their reactivity is the spatial presentation of the electrostatic groups along a flexible polymer chain. This strategy was used in the creation of both Viraffinity™; and HemogloBind™. HemogloBind™ is engineered for a high degree of selectivity and does not cross react with most common serum components, making it an excellent tool in numerous applications. These include analytical protocols where optical interference is problematic, such as bilirubin analysis and bulk serum clarification. Hemoglobin variants, as in thalassemia, bind with differential affinity towards HemogloBind™. For purification and/or analysis of hemoglobin, a modest elevation in pH will facilitate desorption of hemoglobin bound to HemogloBind™.



## HemoVoid™ - Blood Card Reagent

*Hemoglobin Depletion Plus Protein Enrichment From Blood Card*

**Abs at 410 nm shows presence of hemoglobin.** On left, proteins extracted from dried blood card show high hemoglobin concentration. On Right, after HemoVoid™ treatment, hemoglobin is severely depleted.



- Hemoglobin voids in flow-through >98%, with <30 minute bind/wash/elute protocol
- Hemoglobin removal from whole blood lysates extracted from dried blood cards
- Hemoglobin removal from frozen and fresh whole blood
- Blood proteins and enzymes are enriched for potential biomarker and proteomic studies.
- Disposable, cost-effective hemoglobin depletion sample preparation protocol
- Removes hemoglobin from whole blood of diverse species including human, mice, sheep, bovine, goat, rat, etc.

Hemoglobin is a common contaminant from whole blood. The HemoVoid™ Blood Card protocol was designed to substantially reduce the presence of hemoglobin and its associated interference with many serum protein analytes. HemoVoid™ Blood Card is a silica based polyelectrolyte matrix, removes hemoglobin from dried whole blood card samples. The HemoVoid™ protocol uses mild buffers; the protocol conditions are so gentle that native enzyme activity is retained in elution fractions.

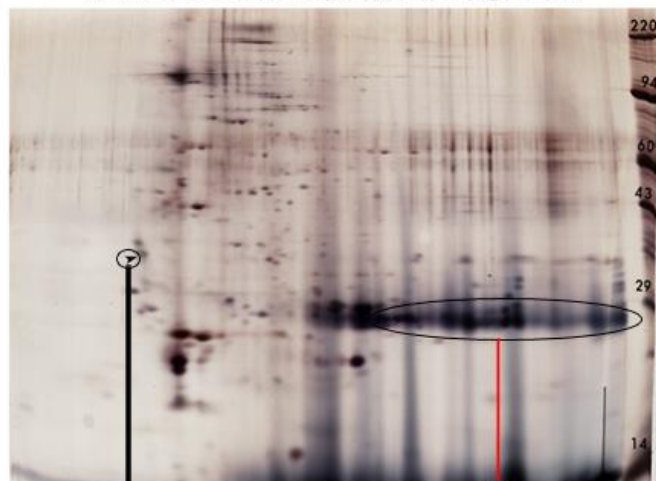
The HemoVoid™ Blood Card produces enriched proteins free of hemoglobin which are used for biomarkers and protein analysis. The hemoglobin enriched filtrate could have hemoglobin variants, hemoglobin binding proteins or other analytes optimal for biomarker studies.



## HemoVoid™

### Hemoglobin Depletion From Erythrocytes

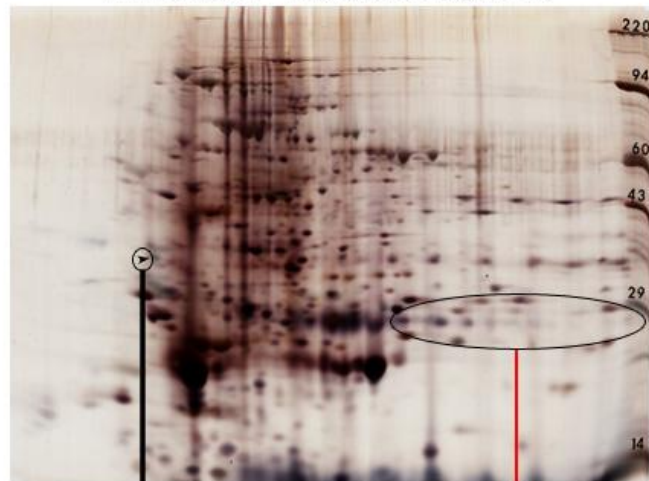
Red Blood Cell Lysate, 50 µg Load



IEF Internal standard,  
pI 5.2

Hemoglobin  
Subunits  
Region

HemoVoid™ Eluate, 50 µg Load



IEF Internal Standard,  
pI 5.2

Hemoglobin  
Subunits  
Region

**Materials and Methods.** IEF Dimension: 2% pH [3.5 - 10.0] carrier ampholines were employed in 2mm glass tubes for focusing. Size dimension: Each IEF tube gel was sealed to a 10% acrylamide slab gel. After electrophoresis, proteins were fixed and silver stained. Molecular weight reference standards are represented on the far right side of each image.

**Results and Discussion.** When comparing the two gel images, the HemoVoid™ eluate (right) has been severely depleted of Hemoglobin. The remainder of the red cell proteins are substantially enriched (visualized) and are better resolved in the HemoVoid™ eluate. Many more proteins are detectable after HemoVoid™ treatment with extensive protein coverage across both dimensions.

## Hemoglobin Depletion Plus Low Abundance Protein Enrichment

### From Erythrocyte Lysates and Hemolyzed Serum

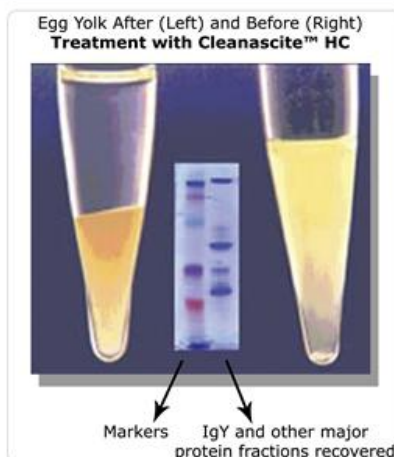
- Hemoglobin voids in flow-through >98%, with <30 minute bind/wash/elute protocol
- Hemoglobin removal from red cell lysates and also from hemolyzed serum
- Low abundance protein and enzyme enrichment
- Disposable, cost-effective
- Mild elution maintains tertiary structure and simple transfer to secondary analysis
- Removes hemoglobin from species including human, sheep, bovine, goat, etc.
- The eluted fractions retain their enzymatic and biological activity

HemoVoid™, a silica-based protein enrichment matrix, removes hemoglobin from erythrocyte lysate samples while concentrating low abundance, and/or low molecular weight proteins. The HemoVoid™ protocol uses mild buffers; the protocol conditions are so gentle that native enzyme activity is retained in elution fractions.

HemoVoid™ derives from a silica-based library of individual mixed-mode ligand combinations (ionic, hydrophobic, aromatic, polymer). The library was designed to facilitate weak binding of proteins, allowing for rapid elution from the matrix without any foreknowledge of the variety of proteins contained in the starting sample. HemoVoid™ depletes hemoglobin from red cell lysates while improving the resolution of less abundant blood proteins.



## Cleanascite™ - Lipid Removal and Clarification



Clarifies the following, in the purification and analysis of antibodies, proteins, nucleic acids, proteoglycans, and other macromolecules:

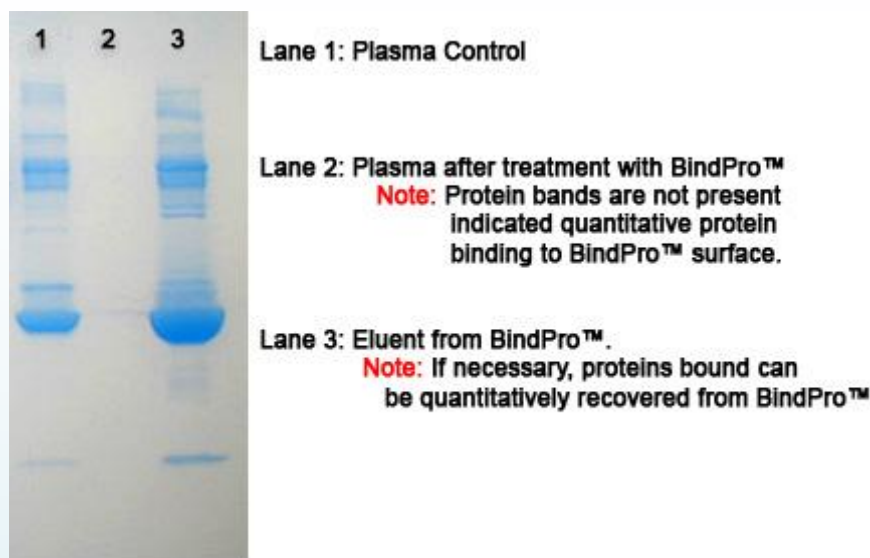
- |                |                     |
|----------------|---------------------|
| ✓ Ascites      | ✓ Tissue Culture    |
| ✓ Serum/Plasma | ✓ Organ Homogenates |
| ✓ Bile         | ✓ Saliva/Sputum     |
| ✓ Cohn Paste   | ✓ Egg Yolk          |
| ✓ Cell Lysates | ✓ Transgenic Milk   |

- A high binding capacity for lipids with minimal cross-reactivity with proteins
- Effectively replaces chlorinated/fluorinated hydrocarbons (eg. freon) and it is environmentally friendly.
- Helps purify antibodies, recombinant proteins, nucleic acids, proteoglycans
- Ideal for clarifying ascites, serum, cell & tissue culture, bile and organ homogenates
- Clarifies saliva and fecal components
- Very low protein binding
- Does not bind to DNA, RNA, enzymes and proteins
- Leaves glycoproteins, antibodies, nucleic acids, hemoglobin, proteoglycans, nucleic acids, serum components (such as hormones, nutrients, globulins, clotting factors, transport proteins) alone
- Extends the life of membrane and chromatographic columns.
- Enrichment of delipidated tissue samples
- Ideal for delipidation treatments for downstream processing of large-scale therapeutic proteins, enzymes and monoclonal antibodies.

Cleanascite™ selectively removes lipids, cell debris, lipoproteins, floating fats, impurities from cohn paste, transgenic milk, egg yolk and biological samples for pretreatment of samples prior to purification. The reagent is a solid-phase, non-ionic adsorbent supplied as a suspension in saline, ready for use. Simply add, centrifuge and/or filter. The clarified supernatant is ready for subsequent downstream processing or analysis.



## BindPro™ - Protein Removal for Drug Screening & Metabolomics



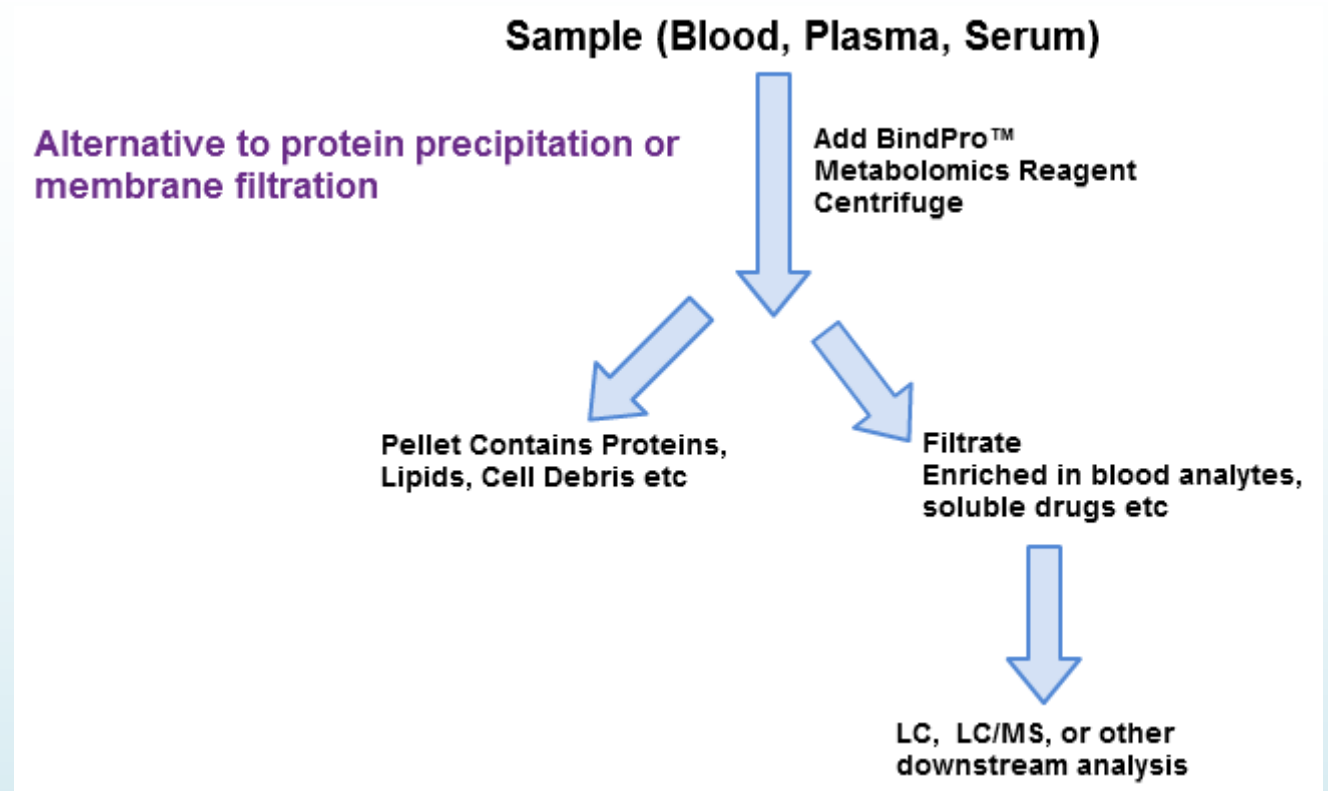
- Applicable for drug binding/screening, metabolomics and protein recovery
- Linearly scaleable, unlike ultrafiltration
- Suitable for use with surfactants, chaotropes, water-soluble analytes
- Fast process, less than 15 minutes from application to separation

BindPro™ is a polymeric protein removal suspension reagent. It is designed as an alternative to ultrafiltration for applications that require a more versatile or scaleable format. BindPro™ also can be used in lieu of solvents for drug binding studies, especially useful for analytes that are water soluble. Consequently, BindPro™ has applications in a range of drug binding, screening and metabolomic investigations. If desired, proteins can be recovered from BindPro™ under moderately alkaline conditions.

Use BindPro™ for methods of human plasma biomarker discovery using high-abundance protein depletion techniques. BindPro can eliminate the artifacts of protein contamination and improve study of amino acids, sugars, lipids, nucleotides, and other biomolecules from biological tissues and fluids. Method: “To determine if TLR2/6 ligands of Wolbachia are lipoproteins, we treated the filarial extracts with Cleanascite™, which selectively removes lipids and lipoproteins, or with BindPro™, a polymeric protein removal suspension reagent (Biotech Support Group). Both treatments completely ablated (to background levels) HEK-TLR2 cell IL-8 reporter gene activity to BMFE thereby showing that the TLR2/6 activity depends on both lipid and protein moieties.” Metabolomics is increasingly becoming an important field in the pharmaceutical industry to support the discovery and development of therapeutic agents. It allows the comprehensive and simultaneous profiling of hundreds of discrete biologically important molecules, including amino acids, sugars, lipids and exogenous substances from biological fluids and tissues.

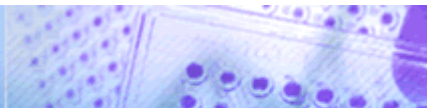


## BindPro™ - BindPro™ Metabolomics - Protein Removal & Enrichment of Metabolites/Analytes From Serum or Plasma

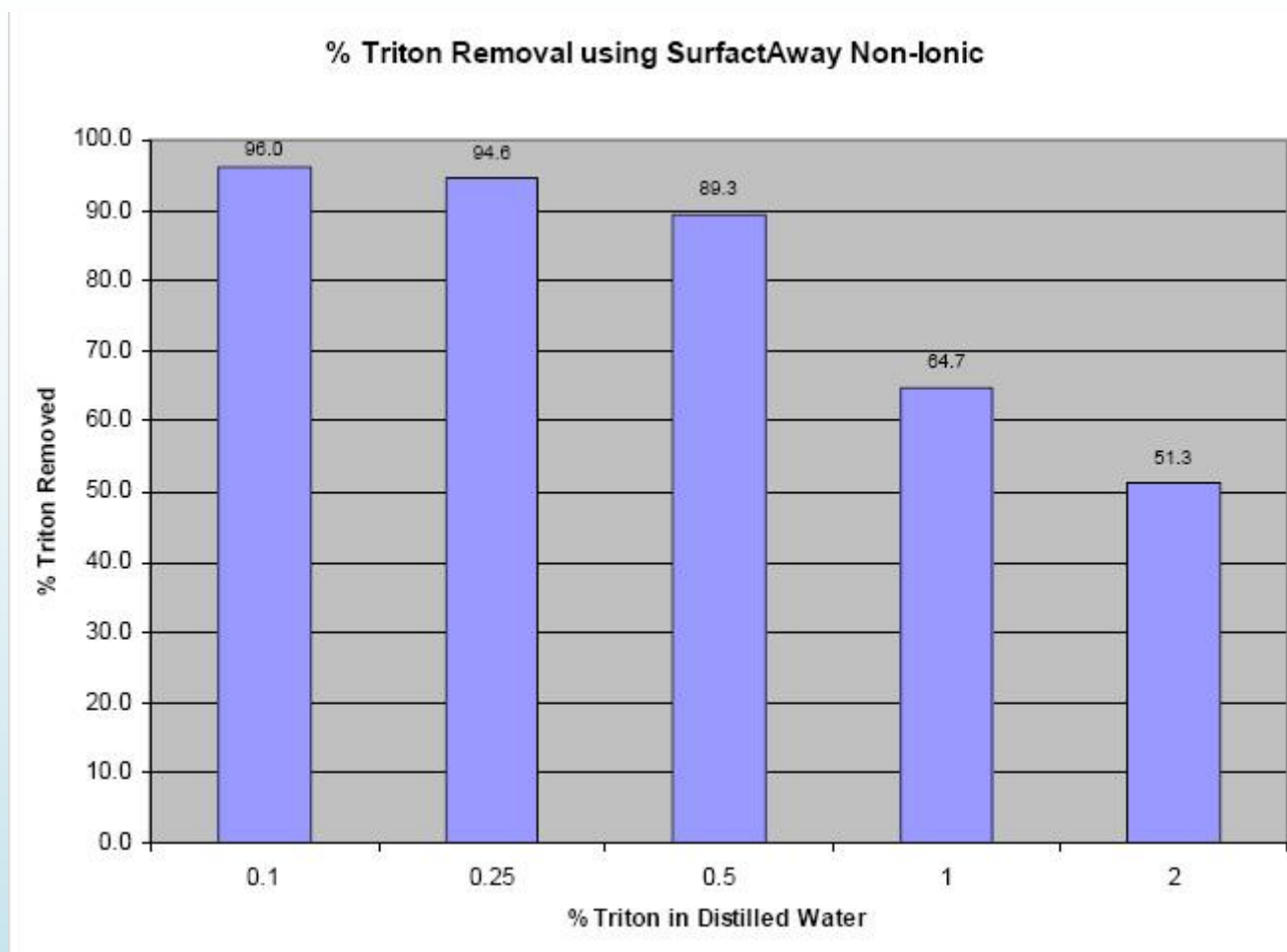


- Serum and plasma protein removal, >95%
- Linearly scaleable, unlike chemical precipitation or membrane filtration.
- Fast process, less than 30 minutes from application to separation
- Applicable for drug binding/screening and metabolomics

BindPro™ is an umbrella trademark for polymeric reagents designed as alternatives to ultrafiltration and solvent precipitation for applications that require protein removal and/or concentration in a more versatile or scaleable format. BindPro™ Metabolomics also can be used in lieu of solvents for drug binding studies, especially useful for analytes that are water soluble. Consequently, BindPro™ Metabolomics has applications in a range of drug binding, screening and metabolomic investigations.



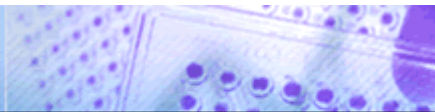
## SurfactAway™ SDS and Triton Removal



- Removes >99% detergent
- Very selective, virtually no cross-reactivity with other proteins
- Simple, just pipette, centrifuge and discard pellet
- Economical new surface technology, not based on hydrophobic chromatography

Detergents can often interfere with protein analysis. SurfactAway™ offers a simple and fast method to remove non-ionic detergents such as Triton. Recovery of protein is quantitative. SurfactAway™ Triton is especially designed for Triton removal and is a solid-phase suspension reagent. Both are applied in a simple protocol, just add, centrifuge and recover the protein solution.

▪



## Viraffinity™ - Virus and Viral Component Isolation

Virus	Titer	Ratio	% Bound <sup>b</sup>
HIV-1 <sup>a</sup>	7x10 <sup>3</sup> TCID <sub>50</sub>	1:2	96
HIV-1, human serum	7x10 <sup>3</sup> TCID <sub>50</sub>	1:2	80
Chimeric Human Rhinovirus <sup>a</sup>	10 <sup>6</sup> - 10 <sup>8</sup> pfu/ml	1:3	95
Adenovirus (Ad5d1309) <sup>a</sup>	10 <sup>6</sup> - 10 <sup>8</sup> pfu/ml	1:3	90
Reovirus Type 3 <sup>a</sup>	10 <sup>6</sup> - 10 <sup>8</sup> pfu/ml	1:3	50-80
Encephalomyocarditis (EMC) <sup>a</sup>	10 <sup>7</sup> TCID <sub>50</sub>	1:4	99
Porcine Parvovirus <sup>a</sup>	10 <sup>7</sup> TCID <sub>50</sub>	1:2	90
Unclassified Enteropicornavirus <sup>a</sup>	10 <sup>8</sup> TCID <sub>50</sub>	1:4	90
Coxsackievirus A24 <sup>a</sup>	10 <sup>6</sup> - 10 <sup>7</sup> pfu/ml	1:2	70-95
Bacteriophage Lambda	10 <sup>9</sup> pfu/ml	1:5	>95

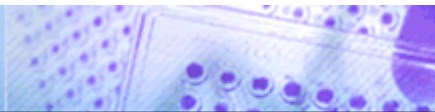
Ratio refers to the volumetric ratio of Viraffinity™ to sample.

<sup>a</sup> Tissue culture supernatants containing 1-10% Fetal Bovine Serum.

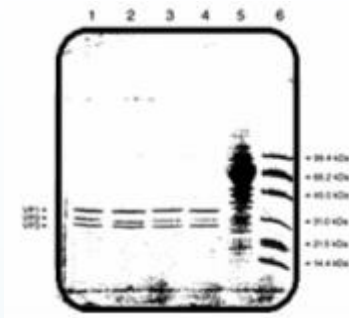
<sup>b</sup> Based on infectivity.

- Purifies whole infectious non-enveloped virus & non-infectious enveloped virus
- Isolates antigenic virions, enveloped and non-enveloped
- Enriches for viral nucleic acids
- Prepares viral samples for subsequent detection and analysis

Viraffinity™ is a unique water-insoluble elastomeric polyelectrolyte that has been engineered for the capture and recovery of viruses. Applications include: purification of whole infectious non-enveloped virus, virions, viral components, and sample preparation for subsequent detection and analysis. Viraffinity™ is directly added to the sample that is then mixed and centrifuged. The centrifuged pellet contains polyelectrolyte-bound viruses that can then be recovered using a moderately alkaline pH solution. Viraffinity™ is supplied as a suspension reagent ready for use. Simply pipette the suspension into the sample at the appropriate ratio, typically 1 volume of Viraffinity™ to 4 volumes sample. Viraffinity™ is also supplied as the enabling component of the ViraPrep™ application kits



## ViraPrep™ Mammal - Virus and Viral Component Isolation



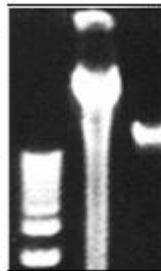
### Chimeric Rhinovirus Isolation

Lanes 1 & 2: ViraPrep™ purified Chimeric Rhinovirus.  
 Lanes 3 & 4: Sucrose Gradient purified Chimeric Rhinovirus.  
 Lane 5: Lysate of infected cells, sample prior to ViraPrep™ protocol.  
 Lane 6: Molecular weight marker

- Protocols less than 90 minutes
- Kits contain all conditioning and elution buffers for binding and elution of viruses
- Compatible with detergents and chaotropes
- No ultracentrifugation required

## ViraPrep™ Lambda - Virus and Viral Component Isolation

Culture Conditions	Titer	λDNA Yield	% Bound
150 mm plate lysate, solubilized in 10 ml ViraPrep™ conditioning buffer, and clarified	10 <sup>9</sup> pfu/ml	10 - 20 µg	>95
10 ml liquid lysate	10 <sup>9</sup> pfu/ml	10 - 20 µg	>95

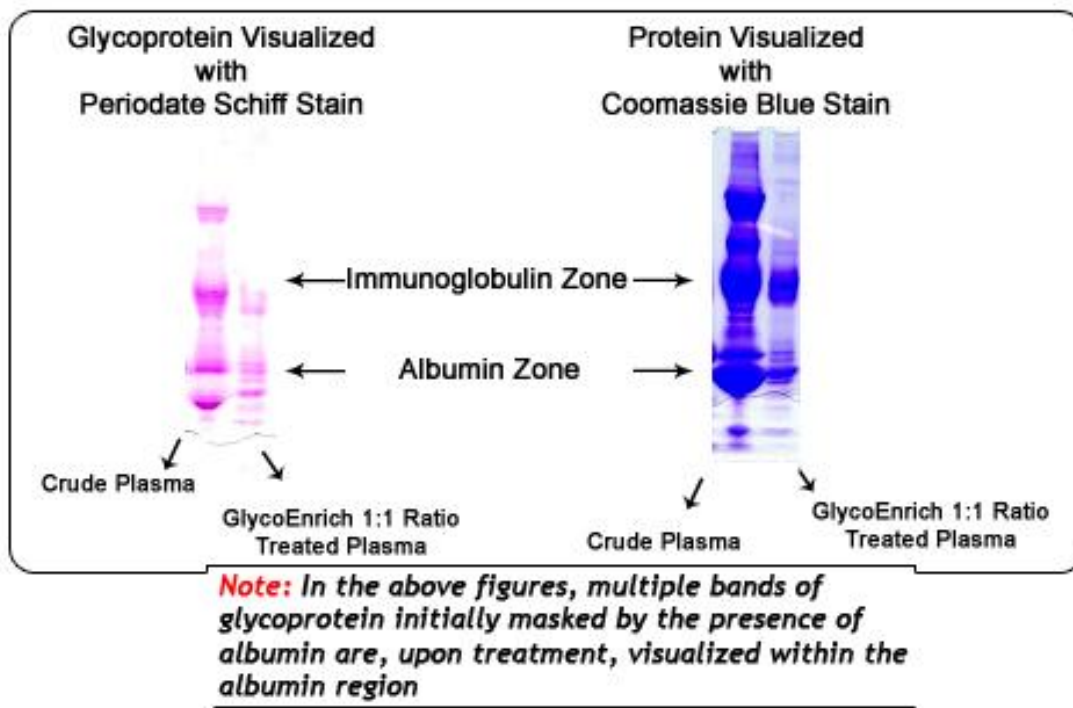


Lane M: Markers  
 Lane 1: PEG/Phenol-Chloroform  
 Lane 2: ViraPrep™ method  
 Lane 3: Eco RI digest of ViraPrep™  
 Note: Insert band approx. 1 kb

- Complete DNA purification kit includes Viraffinity™, conditioning buffer, RNase and lysis buffer
- Extremely rapid and simple-to-use. The entire protocol is complete in less than 1? hours
- Phage coat proteins and exonuclease remain bound to the polymer surface
- Non-hazardous, no polyethylene glycol



## GlycoEnrich™ - Glycoprotein Enrichment Reagent for Serum/Plasma



- Removes more than 90% of non-glycosylated proteins.
- Easy-to-use, no wash or elution involved.
- Retains enriched glycoproteins in the supernatant.
- Adaptable to a high-throughput 96-well format.

GlycoEnrich™ is an innovative & effortless procedure for glycoprotein enrichment from biological samples (e.g. serum, plasma, or blood). Kit provides a fast and efficient method for glycoprotein enrichment by removing non-glycosylated proteins from the sample and leaving behind enriched glycosylated proteins which are not bound by the water insoluble elastomeric polyelectrolyte (GER).



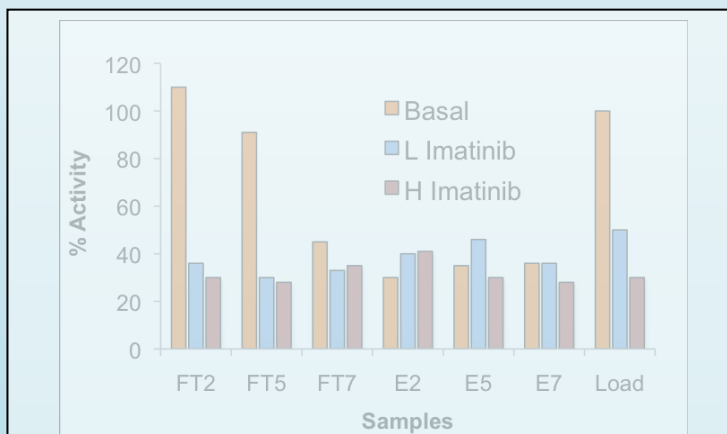
### KinaSorb™

#### Kinase (& ATP binding proteins) enrichment reagent

- Ratio of Total Kinase Activity\* relative to total protein content increases 300% or more
- ATP binding protein recoverable, ~200 µg
- Up to 4X concentration of kinase volume, relative to starting volume
- 60 minute, scaleable protocol compatible with functional assays, electrophoresis and Mass Spec
- Phosphatase (neutral & alkaline) activity not detectable
- Improves protein normalization when comparing heterogeneous tissues

While inhibition of kinases has had clinical success, a major challenge is the sequence conservation of the catalytic domain. Thus, new methods that can prospect into the structure and functional properties of kinases and their variants are urgently needed. The development of a robust enrichment method with retention of activity, would be a crucial first step for drug discovery and biomarker classification within this class.

KinaSorb™ is a new reagent kit used for the enrichment and isolation of kinases. In a patent pending process, ATP - the common substrate for kinases, is reversibly immobilized to metallic oxide particles, producing a single-use highly efficient enrichment method for kinase & other ATP binding proteins. The standard prep protocol starts with 100 µl of clarified cellular extracts, or approximately 2 mg total cellular extract protein, but the process can be scaled up or down to accommodate different sample volumes and protein concentrations. The methods are reasonably specific to ATP; little Phosphodiesterase activity (an enzyme which binds to a structurally similar adenosine containing substrate - cAMP), was measured in the eluant after KinaSorb™ treatment. The kit includes all necessary reagents for immediate use.



In this example, a clarified rat brain homogenate was enriched with KinaSorb™ (box) and then processed through several multi-dimensional separations surfaces (SeraFILE™\*\*). The bars reflect kinetic activity in the various sub-proteome fractions as a percentage of activity in the load applied to the surfaces. The numbers designate the different surface architectures. FT: Flow through, E: elution, L: low Imatinib inhibitor concentration, H: high Imatinib inhibitor concentration.

\*As measured by Universal Protein Tyrosine Kinase assay (Takara Bio Inc, Otsu, Shiga, Japan). \*\*SeraFILE™ is a trademark of ProFACT Proteomics.

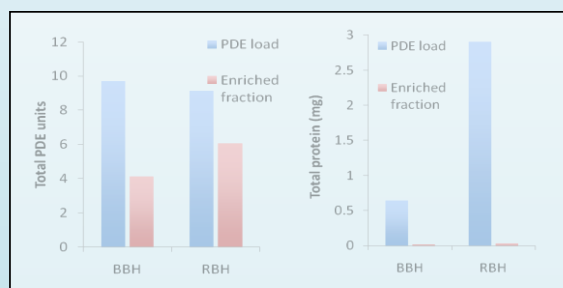
### PDEnrich™

#### Cyclic Nucleotide Phosphodiesterase Enrichment Reagent

- Ratio of Total Phosphodiesterase Activity relative to total protein content increases 4-10X
- PDE protein recoverable, ~70 µg
- Up to 50X concentration of PDE volume
- 45 minute, scaleable protocol
- Improves protein normalization when comparing heterogeneous tissues

Cyclic nucleotide phosphodiesterases (PDEs) hydrolyze the secondary messengers cyclic AMP (cAMP) and cyclic GMP (cGMP) at their 3'-phosphodiester bond, to yield 5'-adenosine monophosphate (5'-AMP or AMP) and 5'-guanosine monophosphate (5'-GMP or GMP) respectively. These secondary messengers maintain homeostasis and thus play a pivotal role in regulating cellular pathways.

While inhibition of this class of enzymes has had clinical success, a major challenge in designing inhibitors that specifically inhibit PDE subtypes has been the sequence conservation of the catalytic domain among PDE subfamilies. Thus, new methods that can prospect into the structure and the functional properties of conformational variants of PDEs are urgently needed, as the success of PDE inhibitors will depend upon such characterization. The development of a robust enrichment method would be a crucial first step for drug discovery and biomarker classification within the PDE class. However, classical substrate affinity methods have not evolved because of the instability of the cyclic phospho-ester bond.

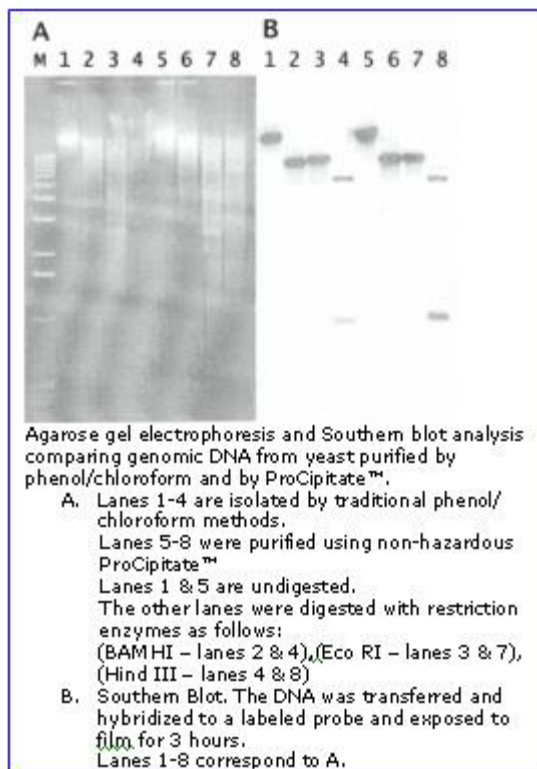
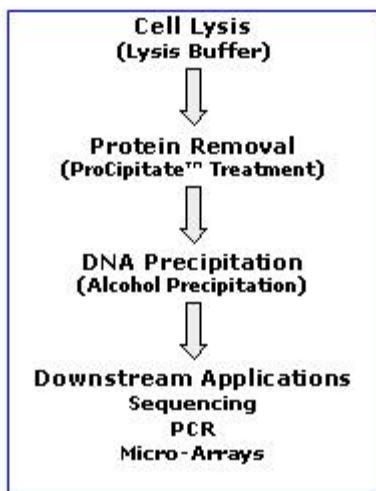


On the left is a comparison of enriched Bovine Brain Homogenate (BBH) and Rat Brain Homogenate (RBH) before and after treatment with PDEnRich™. A substantial amount of cAMP hydrolysis activity\* is recovered in both cases with a dramatic reduction in total protein content.



# ProCipitate™ - Protein removal reagent/DNA enrichment & isolation, substitute to phenol/chloroform

Sample Size	ProCipitate™ Typical Usage
10 ml Yeast Culture	1-2 ml
Mouse Tail	250-500 µl
4 mm Plant Leaf	100-200 µl



- Removed only the contaminants & leaves DNA alone
- Improves yield of DNA over alternative bind and elute systems
- Adaptable to any sample size, and can be automated
- Key component of the ProPrep™ line of application specific kits

ProCipitate™ is a unique protein extraction reagent based upon patented elastomeric polyelectrolytes. The polymer chains of ProCipitate™ are initially extended in a high energy state due to an overall net negative charge. When introduced to protein solutions, the charges are neutralized and the polymer chains collapse to a more favorable energy state; DNA and RNA remain unreacted. ProCipitate™ is non-hazardous and can replace phenol/chloroform with the additional benefits of solid-phase suspensions: adaptability to filtration and automation. It is routinely used for Plasmids, Cosmids, BACs, and Genomic DNA, as well as RNA. ProCipitate™ can also be used to remove Proteinase K and other enzymes. ProCipitate™ provides high quality DNA suitable for automated sequencing, Southern blotting, and restriction digestion. ProCipitate™ is available as a suspension reagent and in ProPrep™ kits for specific applications and high-throughput 96 well filter formats.



## Polymer Coated Silica Affinity Matrices Immobilization & Pre-Immobilized Affinity Matrices

For Immobilization of Proteins, Antibodies, Hormones, Peptides, Haptens, Drugs, Etc.						
Product Name	Matrix Reactive Group	Ligand Reactive Group	Special Features	Size	Column Volume apprx	Item No.
NuGEL™ Poly-Epoxy	Terminal Epoxy	Amino	Direct Coupling	25 Grams	50 ml	NPEY-25
NuGEL™ Poly-Amine	Terminal Amine	Carboxylic Acid, or Carbohydrate	Carbodiimide reaction, or NaIO <sub>4</sub> derived Aldehyde	25 Grams	50 ml	NPAM-25
NuGEL™ Poly-Aldehyde	Terminal Aldehyde	Amino	Direct Coupling	25 Grams	50 ml	NPAY-25
NuGEL™ Poly-Hydroxy	Terminal Glycol	Amino	Carbodiimidazole mediated reaction	25 Grams	50 ml	NPHX-25
NuGEL™ Poly-Diazo (discontinued)	Terminal Azido	Tyrosine Residues, o, p Phenols	Diazonium Ion substitutes into <i>meta</i> position	25 Grams	50 ml	NPDO-25
NuGEL™ Poly-Carboxy	Terminal Carboxylic Acid	Amino	Carbodiimide mediated reaction	25 Grams	50 ml	NPCY-25
NuGEL™ Poly-NHS	Terminal N-Hydroxy Succinimide	Amino	Direct Coupling	25 Grams	50 ml	NPNS-25

\*Other particle sizes and porosity of NuGEL™ is also available upon request.

Affinity Ligands Pre-Immobilized				
Product Name	Application	Size	Column Volume apprx	Item No.
NuGEL™ Concanavalin A	Mannose, Glucose, Glycoproteins	15 Grams	30 ml	NCNA-15
NuGEL™ Phenyl Boronic Acid	Cis-diols, Glycoproteins	15 Grams	30 ml	NPBA-15
NuGEL™ Nickel (discontinued)	6-His Rec. Proteins	15 Grams	30 ml	NNIL-15
NuGEL™ Glutathione (discontinued)	GST Fusion Proteins	15 Grams	30 ml	NGTT-15
NuGEL™ Blue (discontinued)	Albumin	15 Grams	30 ml	NBLU-15

Non-specific sites are virtually eliminated by a polymer coating

Stable across a wide pH range 2 – 10

Solvent compatible

1000Å, 50Å Silica suitable for LC and batch processes

Silica has been an industry standard as an advantageous matrix suitable for high performance liquid chromatography. With NuGEL™, non-specific sites have been virtually eliminated making it an ideal support for affinity purification. Through a proprietary polymer coating, Silica is crosslinked forming a reactive Poly-Epoxy functionality stable across a wide pH range (pH 2 to 10). From this foundational chemistry, all of the NuGEL™ affinity products are derived.



## Large Scale Chromatography Media for Proteins

### Polymer Coated Hydrophobic Support

For Separation of Proteins, Antibodies, Enzymes, Hormones, Peptides, Haptens, Drugs, Etc.						
Product Name	Matrix	Ligand	Size	Column Volume (Approximately)	Item No.	Price
NuGEL™ P-Butyl	NuGEL™	C4	25 Grams	50 ml	501-25	\$315
NuGEL™ P-Butyl	NuGEL™	C4	100 Grams	200 ml	501-100	\$500
NuGEL™ P-Octyl	NuGEL™	C8	25 Grams	50 ml	502-25	\$315
NuGEL™ P-Octyl	NuGEL™	C8	100 Grams	200 ml	502-100	\$500
NuGEL™ P-Phenyl	NuGEL™	Phenyl	25 Grams	50 ml	506-25	\$315
NuGEL™ P-Phenyl	NuGEL™	Phenyl	100 Grams	200 ml	506-100	\$500

\*Other particle sizes and porosity of NuGEL™ is also available upon request.

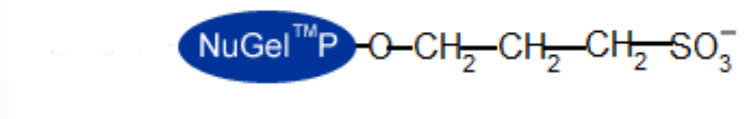
- Non-specific sites are virtually eliminated by a polymer coating
- Stable across a wide pH range 2 – 10
- Solvent compatible
- 1000Å, 50Å Silica suitable for LC and batch processes

Unique polymer coated hydrophobic support have been developed for large scale purification of biological macromolecules (i.e. proteins, peptides etc). The proteins and peptides are eluted from the hydrophobic support in order of hydrophobicity by decreasing salt concentration or pH.

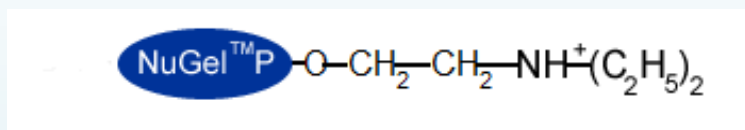


## Large Scale Chromatography Media for Proteins

### Polymer Coated Ion Exchange Support



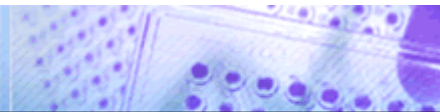
NuGel™ P-SP(strong cation exchange support)



NuGel™ P-DE(weak anion exchange support)

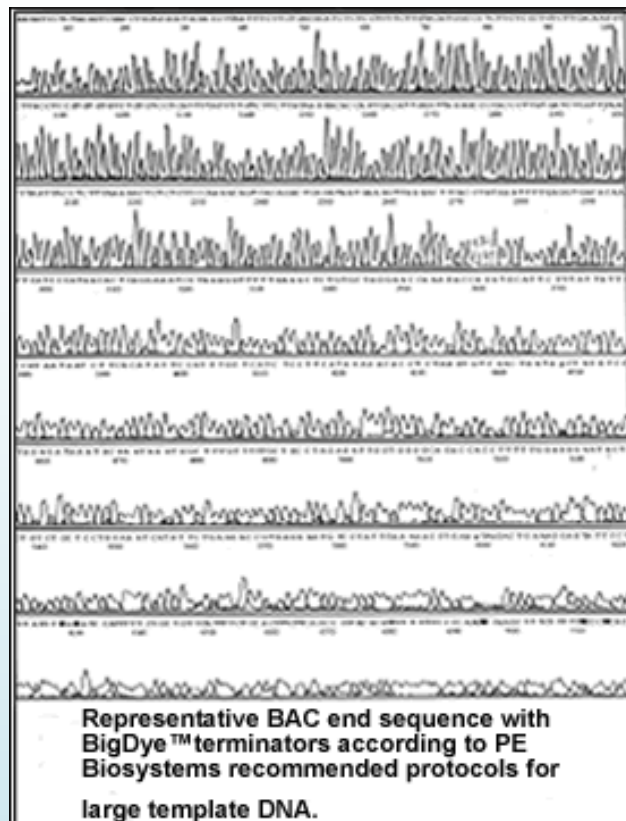
- Non-specific sites are virtually eliminated by a polymer coating
- Stable across a wide pH range 2 - 10
- Solvent compatible
- Porosity: 1000A
- Particle Size: 50u
- Suitable for LC and batch processes
- Bulk Density: 1gm = 2ml
- Mode of Operation: Batch mode or column mode
- Step Elution Recommended
- Buffer: (a) 0.025M phosphate pH 6.0 (b) 0.25M phosphate + 0.4M NaCl pH 9

Biotech Support Groups many years of dedicated research on polymerization and silanization of siliceous materials resulted in NuGel P where a durable covalent polymerization reaction has stabilized the surface from the decaying effect of aqueous solutions. Non specific sites have been virtually eliminated and the operational pH range has been extended both in the high and low ranges. These NuGel P support materials are indispensable primarily for up-stream purification of biomolecules in biotechnological industries where total protein capacity (not resolution)at high flow rates and scale-up are of prime importance. NuGel P has all the advantages of traditional soft carbohydrate gels plus strikingly higher flow rates, quicker mass transfer properties, higher protein recovery and is more economical.



## Genomic Sample Preparation Products

### ProPrep™ BAC Mini 100

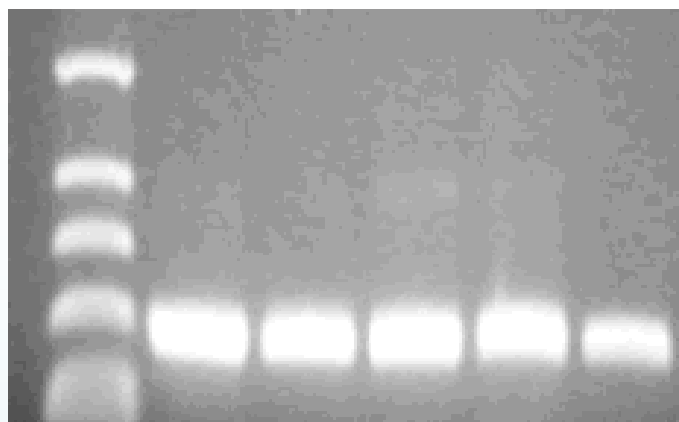


- Ideal for mini-prep BAC template preparation from 1.5ml 2xYT cultures.
- Provides high-quality DNA suitable for automated fluorescent sequencing for small-large insert DNA.
- Utilizes ProPrep™ strategy which minimizes shearing and improves yield.
- Adapts easily to robots and automation.

ProPrep™ BAC Mini 100 is a complete purification system based upon the proprietary reagent, ProCipitate™, that has been demonstrated to provide high quality DNA suitable for automated fluorescent sequencing of small to large insert DNA. The ProPrep™ strategy is to remove only the contaminants and leave DNA alone. This minimizes shearing, improves yield, and makes ProPrep™ BAC Mini 100 ideal for mini-prep BAC template preparation from 1.5ml 2xYT cultures. The ProPrep™ BAC Mini 100 protocol adapts easily to robots and automation; a simple change and there is no centrifugation required after initial cell concentration.



## ProPrep™ Genomic SM-50



← M      280 bp amplicons      →

PCR amplified human genomic DNA  
purified using ProPrep Blood CARD 96.  
PCR is owned by Hoffmann LaRoche.

- Designed for 96-well isolation of Genomic DNA from one 7mm punch of dried whole blood per well.
- Provides purified DNA that compares favorably in PCR reactions to traditional methods.
- Formatted specifically for high throughput & automation. No near boiling elutions.
- Useful for blood from multiple sources including cloth, cards, and floors.

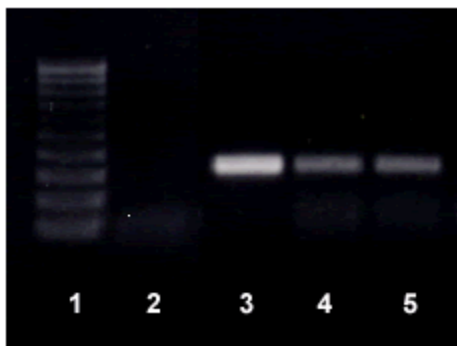
ProPrep™ Genomic SM-50 is a complete nucleic acid purification system based upon the unique protein extraction reagent, ProCipitate™. The basic protocol includes an initial dissociation of DNA from the card (65°C), followed by removal of contaminating proteins and heme with ProCipitate™, and finally the concentration of DNA with the proprietary solid-phase DNable™.

The system is designed for 96-well isolation of Genomic DNA from one 7mm punch of dried whole blood per well (equivalent to approximately 15ml of whole blood). As it is designed specifically for high throughput and automation, the card is not carried forward through the process after the initial DNA desorption.

The ProPrep™ Genomic SM-50 is compatible with industry standard papers. The vacuum filter format requires no specialized centrifuges and is amenable to robotic automation. The resulting purified DNA compares favorably in PCR reactions to traditional methods used for whole blood.



## ProPrep™ Genomic XL - for SNP Analysis



Human Genomic DNA purified using ProPrep™ Genomic producing 280 bp amplicons from Human HLA-DRB primers at 32 cycles, used at the following template quantities:

Lane 1, 100 - 1000 bp Ladder  
Lane 2, Negative Control  
Lane 3, 260 ng total DNA template  
Lane 4, 26 ng total DNA template  
Lane 5, 2.6 ng total DNA template

PCR is owned by Hoffman LaRoche.

- More than 100,000 PCR reactions can be obtained from one, 10ml whole blood sample!
- Can be scaled to accommodate different sample sizes.
- Allows customization of a massive PCR or SNP strategy without significant quantities of blood.
- Quick and easy! The whole protocol can be completed in approximately one hour.

"ProPrep™ Genomic XL is a complete DNA purification system based upon the unique protein binding reagent, ProCipitate™. The isolated DNA is of the highest quality, and PCR can be achieved from as little as 1-2ng of template DNA. This means that more than 100,000 PCR reactions can be obtained from one, 10ml whole blood sample. The flexible ProPrep™ system permits the user to customize a massive PCR or SNP strategy without regard to collecting impractical quantities of whole blood from any one individual. ProPrep™ Genomic XL can be scaled to accommodate different sample sizes. The whole protocol can be completed in approximately one hour."



### ProPrep™

#### ProCipitate™ Based Application Specific Kits

- Buffers and protocols especially optimized for BACs and Genomic DNA
- Microtube systems for moderate throughput, and 96-well for high throughput
- More consistent and cost effective compared to alternative bind and elute systems
- For multiplex SNP analysis, PCR as little as 1 ng template DNA

#### ProPrep™ BAC Mini - Sequencing Quality Mini-Prep for BACs & Plasmids

- Insert size versatile, from 2 to 300 kb
- From 2 ml cultures, yields up to 2 µg BAC per prep

#### ProPrep™ BAC 96 - Sequencing Quality 96 Well BAC Prep

- High throughput template preparation - yields up to 2 µg BAC per prep
- References from facilities that mapped the Human Genome

#### ProPrep™ BAC Omni - Large culture (midi→giga) for BACs & Plasmids

- Starts with 200 or 1000 ml cultures
- Yields to 250 µg BAC DNA

#### ProPrep™ Plasmid 4x96 - Low Cost 96-well Plasmid Prep

- Does not rely on bind/elute protocols, achieves well-to-well consistency
- Low cost, 250 µl starting cultures minimizes reagent usage

#### ProPrep™ Genomic SM - Genomic DNA from 50 µl to 1 ml Blood

- Direct lysis of whole blood, does not require a clean nuclear pellet
- PCR suitability down to 1 ng template DNA, 100X the industry norm

#### ProPrep™ Genomic XL - Genomic DNA from 2 ml to 10 ml Blood

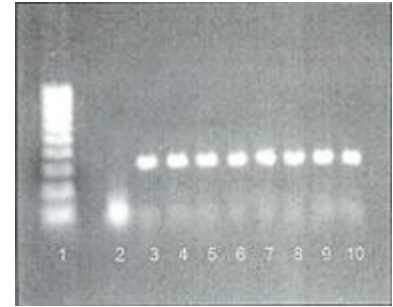
- More than 100,000 PCR reactions can be obtained from one, 10 ml sample
- Massive multiplex PCR or SNP strategies with practical quantities of blood

#### ProPrep™ Genomic 96 - Genomic DNA from Blood, 96 Well Format

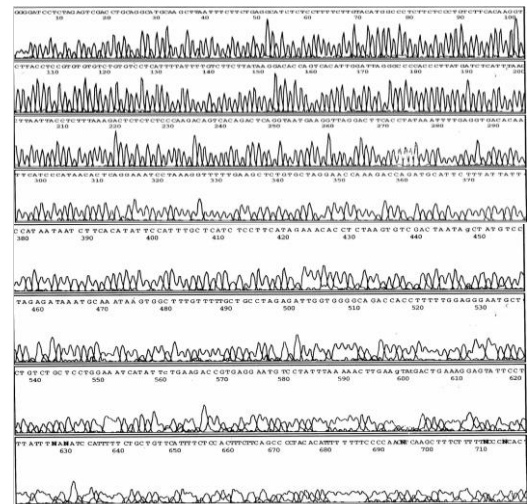
- Direct lysis protocol from 50 µl blood, <15 minute total prep time
- PCR suitability down to 1 ng template DNA

#### ProPrep™ Genomic Blood Card - 96 Well Format from Blood Card

- From 7 mm punch of dried whole blood
- No special card sources, can work with cloth or paper cards



Lane 1: 100-1000 base pair Ladder  
 Lane 2: Negative Control  
 Lane 3-10: PCR amplicons from 1 ng template DNA ProPrep™ purified from whole blood, randomly selected from 96 wells. Amplicons are 280 base pairs from Human HLA-DR-Beta primers at 32 cycles.

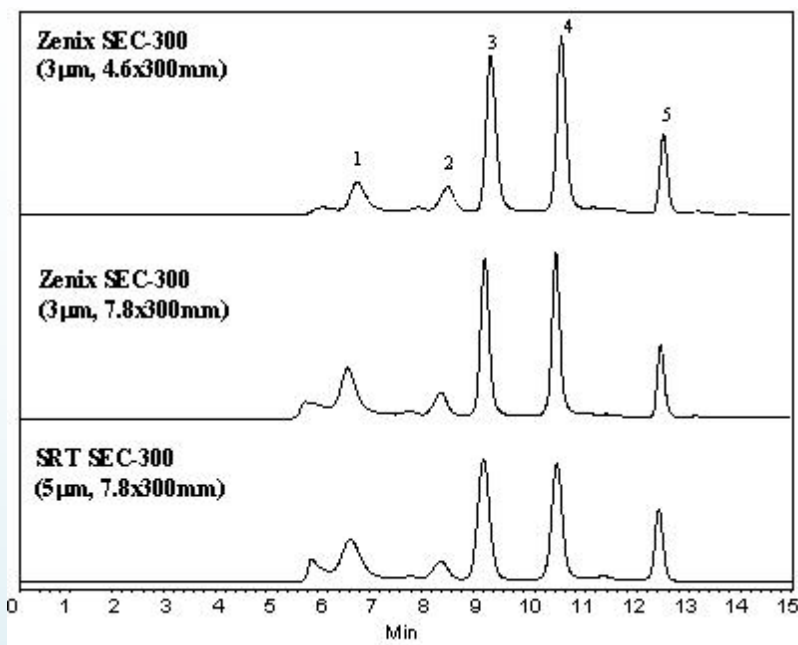


Representative BAC end sequence with BigDye™ terminators according to Applied Biosystems recommended protocols for large template DNA.



## Sepax Zenix™ SEC Column

*Polymer Coated Silica Affinity Matrices*



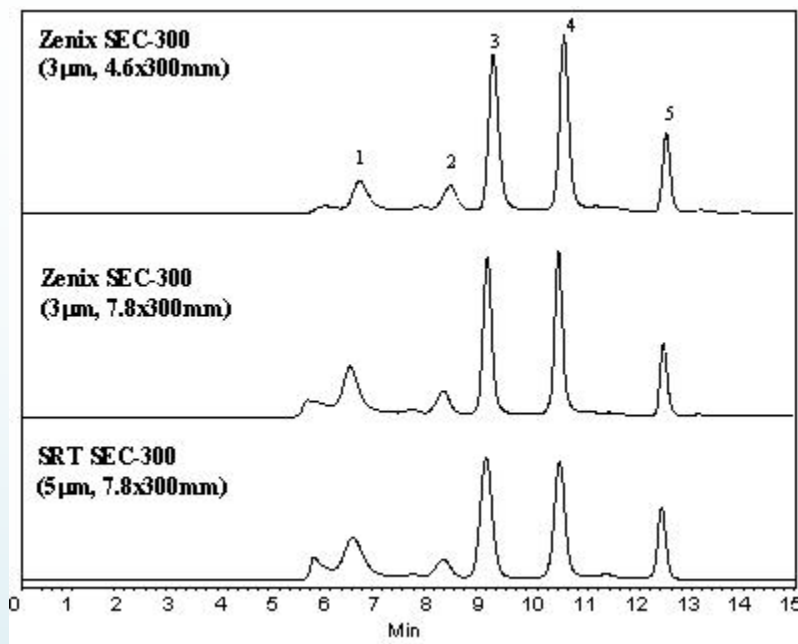
- Particle size of 3 µm
- Selection of pore size: 100, 150 and 300 Å
- Highest separation efficiency and resolution
- High capacity
- High stability over low and high concentration salt
- Lot-to-lot reproducibility
- High protein recovery with intact biological activity
- Negligible non-specific interactions
- Ideal for separation and analysis of biological molecules: proteins, nucleic acids, oligonucleotides, peptides and virus
- Ideal for separation and analysis of natural polymers, e.g. polysaccharides, synthetic polymers, and nanomaterials, e.g. nanoparticles

Zenix SEC 3µm phases are made of uniform, hydrophilic, and neutral nanometer thick proprietary surface coating chemically bonded on high purity and mechanically stabilized silica. Zenix SEC 3µm unique packing combined with large pore volume delivers highest and unrivaled separation efficiency and resolution. The well-controlled surface chemistry results in excellent lot-to-lot reproducibility. Our unique bonding chemistry, coupled with the maximized bonding density, allows Zenix SEC to provide high stability and negligible non-specific interactions. The available pore sizes of Zenix packings are 100, 150 and 300Å. Typical applications for Zenix SEC columns include separation and analysis of biological molecules and water soluble polymers in aqueous buffers.



## Sepax Zenix™ SEC Column

*Polymer Coated Silica Affinity Matrices*



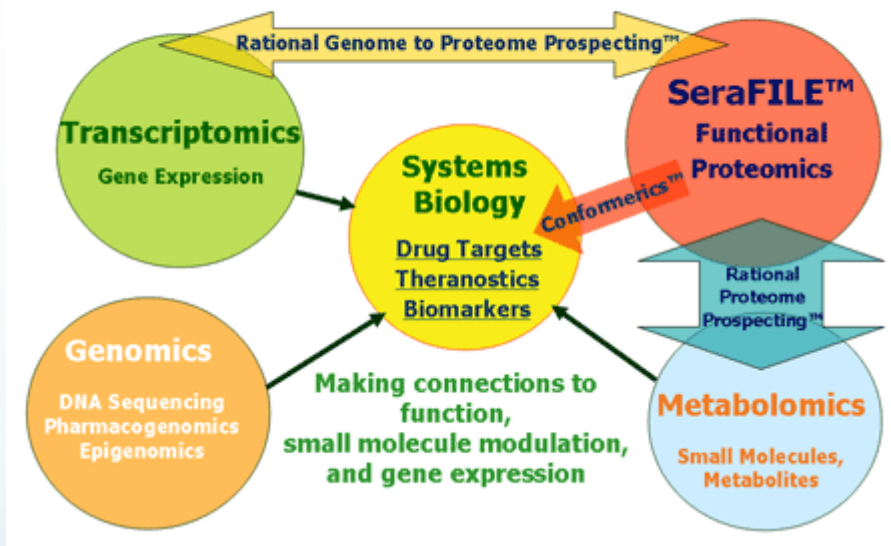
- Particle size of 3 µm
- Selection of pore size: 100, 150 and 300 Å
- Highest separation efficiency and resolution
- High capacity
- High stability over low and high concentration salt
- Lot-to-lot reproducibility
- High protein recovery with intact biological activity
- Negligible non-specific interactions
- Ideal for separation and analysis of biological molecules: proteins, nucleic acids, oligonucleotides, peptides and virus
- Ideal for separation and analysis of natural polymers, e.g. polysaccharides, synthetic polymers, and nanomaterials, e.g. nanoparticles

Zenix SEC 3µm phases are made of uniform, hydrophilic, and neutral nanometer thick proprietary surface coating chemically bonded on high purity and mechanically stabilized silica. Zenix SEC 3µm unique packing combined with large pore volume delivers highest and unrivaled separation efficiency and resolution. The well-controlled surface chemistry results in excellent lot-to-lot reproducibility. Our unique bonding chemistry, coupled with the maximized bonding density, allows Zenix SEC to provide high stability and negligible non-specific interactions. The available pore sizes of Zenix packings are 100, 150 and 300Å. Typical applications for Zenix SEC columns include separation and analysis of biological molecules and water soluble polymers in aqueous buffers.



**PROspector - Differentiated Subproteomes and Enrich Functional Biomarkers**

**The SeraFILE™ "Omics" Information Universe**



- **Efficiently produce differentiated subproteomes with bioactivity preserved.**
- **Generate characteristic molecular profiles for comparison and discovery .**
- **Enrich functional biomarkers for sequence and structural annotation.**
- **Natural source variants compartmentalized for challenge/response with small molecules**

**Efficiently produce differentiated subproteomes with bioactivity preserved**

The mild binding and elution conditions preserve the functional characteristics of the sub-proteomes, important for the next step - the measurement of activity. The SeraFILE-derived daughter sub-proteomes can be analyzed in many ways to generate a molecular profile. Unlike other proteomic platforms which rely exclusively on analyzing for protein content for example 2D electrophoresis and Mass Spec, ProFACTs molecular profiles can combine and correlate many aspects of functional, structural and expression measurements into one platform analyses.

**Generate characteristic molecular profiles for comparison and discovery**

The ability to monitor protein function offers profiling capabilities that cannot be achieved with peptide mass fingerprinting. This is especially useful in profiling enzymes and their variants where the activity can be measured under a variety of challenge conditions, including factors which activate the enzymes, factors especially small molecules, that inhibit the enzymes, and their substrates under different concentrations.

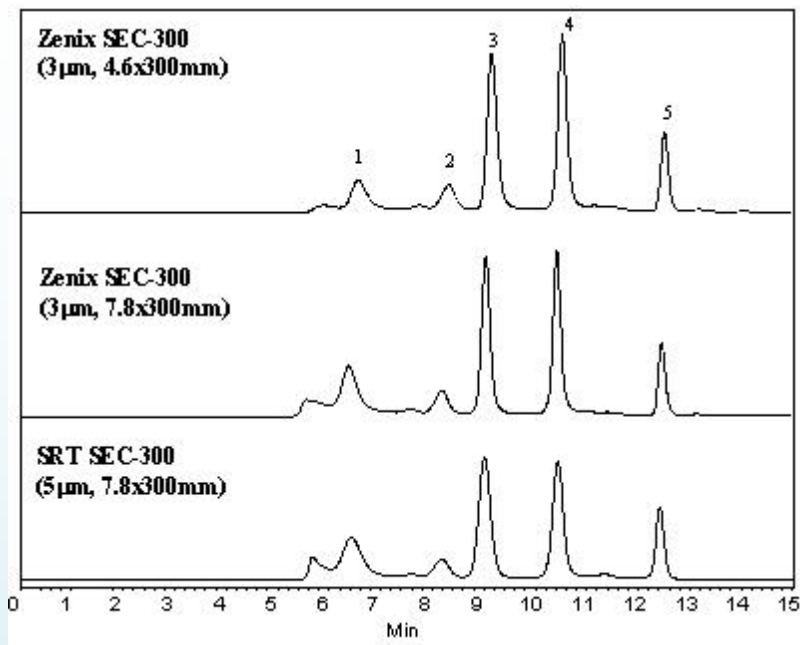
**Enrich functional biomarkers for sequence and structural annotation**

An enrichment strategy might be a select enzyme activity that you want to isolate, characterize and identify. You have pre-determined a way to monitor its activity but cannot observe the presence of the protein directly. By comparing specific activities - enzyme activity divided by total protein, an enrichment factor can be calculated showing which sub-proteome had the highest enrichment for the selected activity. These select enriched sub-proteomes can be further subjected to analyses for sequence and structural annotation by common proteomic techniques, ie. MS. Optionally, these can be fractionated further with the SeraFILE platform.



## Sepax Zenix™ SEC Column

Polymer Coated Silica Affinity Matrices



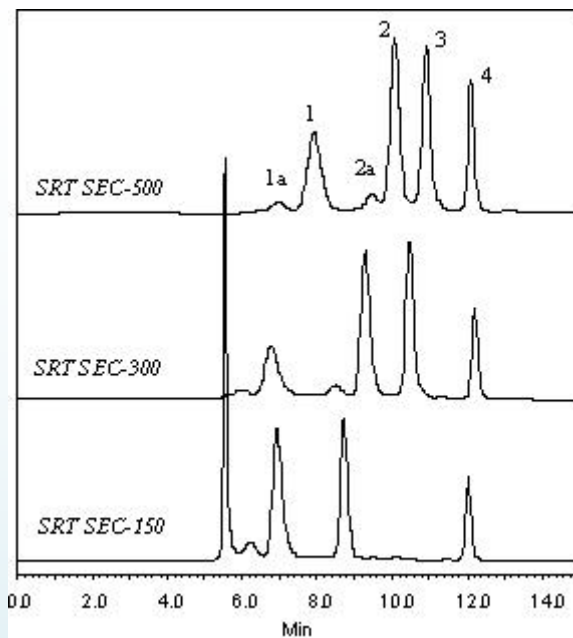
- Particle size of 3 µm
- Selection of pore size: 100, 150 and 300 Å
- Highest separation efficiency and resolution
- High capacity
- High stability over low and high concentration salt
- Lot-to-lot reproducibility
- High protein recovery with intact biological activity
- Negligible non-specific interactions
- Ideal for separation and analysis of biological molecules: proteins, nucleic acids, oligonucleotides, peptides and virus
- Ideal for separation and analysis of natural polymers, e.g. polysaccharides, synthetic polymers, and nanomaterials, e.g. nanoparticles

Zenix SEC 3µm phases are made of uniform, hydrophilic, and neutral nanometer thick proprietary surface coating chemically bonded on high purity and mechanically stabilized silica. Zenix SEC 3µm unique packing combined with large pore volume delivers highest and unrivaled separation efficiency and resolution. The well-controlled surface chemistry results in excellent lot-to-lot reproducibility. Our unique bonding chemistry, coupled with the maximized bonding density, allows Zenix SEC to provide high stability and negligible non-specific interactions. The available pore sizes of Zenix packings are 100, 150 and 300Å. Typical applications for Zenix SEC columns include separation and analysis of biological molecules and water soluble polymers in aqueous buffers.



## Sepax SRT® SEC Column

*Polymer Coated Silica Affinity Matrices*



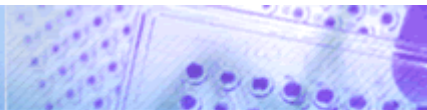
### Packing

- Uniform, nanometer thick molecule layer
- Chemically bonded to silica surface
- Hydrophilic
- Maximum bonding density

### Characteristics

- Highest capacity and resolution
- High efficiency
- High reproducibility
- Widest selection of pore size from 100 Å to 2000 Å
- High protein recovery and maintaining biological activity
- pH range 2 - 8.5

Utilizing proprietary surface technologies, SRT SEC phases are made of the uniform, hydrophilic, and neutral nanometer thick films chemically bonded on the high purity and enhanced mechanical stability silica. This proprietary surface technology results in excellent column-to-column reproducibility. The nature of the chemical bonding and the maximum bonding density of the thin film benefit SRT SEC phases with high stability and negligible non-specific interactions. Along with the widest pore size selection of 100, 150, 300, 500, 1000 and 2000Å, SRT SEC packings have highest capacity that enables highest resolution.



## Distributors

Biotech Support Group is a leader in licensed and proprietary products for genomics and proteomics research. We partner strategically to benefit customers and our distributors. Companies interested in actively marketing and building upon the Biotech Support Group brand of products benefit from increased sales and Biotech Support Group's unique affiliate program.

Our customers are the #1 reason why we partner with companies to establish new channels of distribution of our unique products that are build with extensive research and development expertise. If you are interested in partnering with Biotech Support Group, please fill out the form below to contact Biotech Support Group Products Distributor Department

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