



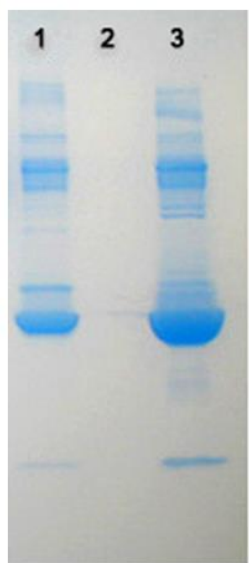
BIOTECH SUPPORT GROUP

NuGel™ BindPro™

Aqueous Protein Crash & Enrichment of Metabolites/Analytes From Serum or Plasma

- Serum and plasma protein removal, >95%
- Ammonium Acetate buffer system, simplifies analyte concentration
- Aqueous Protein Crash, linearly scalable, unlike chemical precipitation or membrane filtration.
- Fast process, less than 30 minutes from application to separation
- Applicable for drug binding/screening, target analytes and metabolomics
- Species agnostic; tested species include human, mouse, sheep, bovine, goat, rat, and calf
- Dry powder format, compatible with high throughput systems such as 96 well plate.
- **NuGel™ BindPro™** supplied as a dry powder reagent; related product - **BindPro™** supplied as a suspension reagent

BindPro™ is an umbrella trademark for polymeric reagents designed as alternatives to ultra-filtration and solvent precipitation for applications that require protein removal and/or concentration in a more versatile or scalable format. **NuGel™ BindPro™** is engineered onto a bead format, based on passivated porous silica (the **NuGel™** platform) covalently bound to elastomeric poly-electrolytes.



Lane 1: Plasma Control

Lane 2: Plasma after treatment with **BindPro™**. Protein bands are not present indicating quantitative protein binding to the **BindPro™** surface.

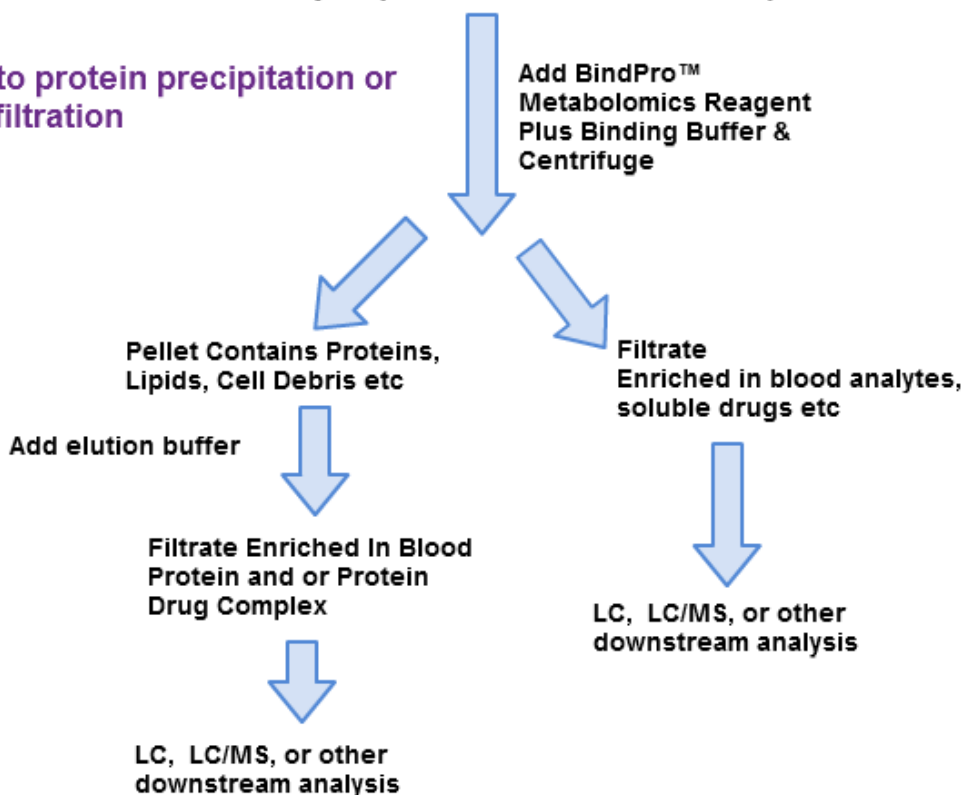
Lane 3: Eluent from **BindPro™**. If necessary, proteins bound can be recovered from **BindPro™**.



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Sample (Blood, Plasma, Serum)

Alternative to protein precipitation or membrane filtration



Protein Removal Per Prep	Removal
BSA, 1 to 2 mg	>95%
Plasma or Serum 1 to 2 mg	>95%

Product	Size	# of Samples & Sample Size*	Item No.
NuGel™ BindPro™	15 Preps	15 preps, 20-30 µl of serum	BPM55-15
NuGel™ BindPro™	50 prep	50 preps, 20-30 µl of serum	BPM55-50



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Items Required	15 prep	50 Prep	Item
NuGel™ BindPro™	0.75 grams	2.5 grams	Supplied
Binding Buffer BPMBB, Ammonium Acetate, pH 5.0	8.0 ml	25 ml	Supplied
SpinX Centrifuge tube filters	15	50	Supplied

PROTOCOL – Based on processing 20-30 µl Serum or Plasma Sample. (Designed to remove 1-2 mg of total protein per prep)

1. Weigh out 50 mg of **NuGel™ BindPro™** matrix in a spin-tube.
2. Add 200 µl of **Binding Buffer BPMBB**. Vortex or mix well for 5 minutes at room temperature followed by centrifugation at 10,000 rpm. Discard the flow through.
3. Add 200 µl **Binding Buffer BPMBB** and 25 µl of the serum or plasma sample to spin tube. Vortex for 10 min and then centrifuge for 4 minutes at 10,000 rpm.
5. Remove the filtrate as Flow-Through **FT**.
6. This FT is now ready for further analysis. **The supernatant contains analytes with >95% serum protein removal, and is ready for concentration or further analysis.**
7. Optionally the pellet can be eluted with 200 µl of **stripping buffer (0.2M Tris + 0.5M NaCl, pH 10 by mixing on a shaker for 10 min)** and centrifuge for 4 minutes at 10,000 rpm.

References

Lipoproteins

Turner, Joseph D., R. Stuart Langley, Kelly L. Johnston, Katrin Gentil, Louise Ford, Bo Wu, Maia Graham et al. "[Wolbachia lipoprotein stimulates innate and adaptive immunity through Toll-like receptors 2 and 6 to induce disease manifestations of filariasis.](#)" Journal of Biological Chemistry 284, no. 33 (2009): 22364-22378.

Patent

Bhagal, John, Shridhara Alva Karinka, Timothy P. Henning, David Cunningham, Udo Hoss, Andrew H. Naegeli, and John Latour. "[Methods of Collecting and Analyzing Samples.](#)" U.S. Patent 20,120,296,189, issued November 22, 2012.

CONTACT US

We welcome your questions and comments regarding our products.

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