

AlbuSorb™

Albumin Depletion From Serum or Plasma

- Removes 30 mg albumin/ml, >90%
- Affinity-type equivalence, virtually no cross-reactivity with other proteins
- Disposable, no column regeneration or cross-contamination
- Economical new surface technology, not based on affinity chromatography
- 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, mouse, goat, rat, and calf.

Poly-electrolytes are polymers with repeating units of stationary charges. AlbuSorb[™] 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 same strategy was used in the creation of both Viraffinity[™] and HemogloBind[™]. Unlike immuno-affinity, the surfaces utilized are disposable eliminating cycle to cycle variance and cross-contamination. AlbuSorb[™] is supplied as a powder. Simply weigh, centrifuge and/or filter, and recover the albumin depleted serum in the supernatant.



Product	Size	Quantity of Serum Processed	Item No.	Price
AlbuSorb ™	6 grams	4.3ml of Serum Samples	A185-6	\$390
AlbuSorb™	18 grams	13 ml of Serum Samples	A185-18	\$950
AIDUSOFD	18 grams	13 mi or Serum Samples	A185-18	\$950

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Items Required	Item No	Item No	Reagent
AlbuSorb™	A185-6 (6 grams)	A185-18 (18 grams)	Supplied
Binding Buffer BB1, PH 7.5	180 ml	540 ml	Supplied

Depletion of albumin using Albusorb[™] or Albuvoid[™]



PROTOCOL – Based on processing 25 µl Serum

1. Weigh out 35 mg of Albusorb[™] powder in a spin-tube/microfuge tube.

2. Add 400 μ l of **Binding Buffer BB1** to condition the AlbusorbTM powder. Shake it manually/ vortex for 3 min and then centrifuge for 2 minutes at 3000 rpm. Discard the supernatant.

3. Repeat step-2

4. As a requirement for albumin binding, add 250 μ l of the **BB1 Buffer** and then add 25 μ l of the serum to **Step 3**. Mix for 10 minutes on a rotating shaker.



5. Centrifuge for 4 minutes at 10,000 rpm, **supernatant contains serum proteins minus albumin.**

6. Optionally the pellet (mostly albumin) can be eluted with 200 μl of stripping buffer (0.2M Tris + 0.5M NaCl pH9.5 by mixing on a shaker for 10 min) and centrifuge for 4 minutes at 10,000 rpm.

The protocol can be scaled up or down proportionally to adjust for different serum volumes. The surface amount can be adjusted to accommodate more or less albumin removal.

References

Cerebrospinal Fluid

Gwenael Pottiez, Pawel Ciborowski. Proteomic Profiling of Cerebrospinal Fluid Expression Profiling In Neuroscience Neuromethods.2012;64:245-270

Synovial fluid

Happonen, Kaisa E., Camilla Melin Fürst, Tore Saxne, Dick Heinegård, and Anna M. Blom. "PRELP protein inhibits the formation of the complement membrane attack complex." *Journal of Biological Chemistry* 287, no. 11 (2012): 8092-8100

Serum

Holmberg, Rebecka, Essam Refai, Anders Höög, Rosanne M. Crooke, Mark Graham, Gunilla Olivecrona, Per-Olof Berggren, and Lisa Juntti-Berggren. "Lowering apolipoprotein CIII delays onset of type 1 diabetes." *Proceedings of the National Academy of Sciences* 108, no. 26 (2011): 10685-10689.

Tang, Ming Xi, Kumiko Ogawa, Makoto Asamoto, Teera Chewonarin, Shugo Suzuki, Takuji Tanaka, and Tomoyuki Shirai. "Effects of nobiletin on PhIP-induced prostate and colon carcinogenesis in F344 rats." *Nutrition and cancer*63, no. 2 (2011): 227-233

Holmberg, Rebecka. *Apolipoprotein CIII and Ljungan virus in diabetes*. Institutionen för molekylär medicin och kirurgi/Department of Molecular Medicine and Surgery, 2010.

Lu, Qiaozhen, Xiaoyang Zheng, Thomas McIntosh, Hugh Davis, Jennifer F. Nemeth, Chuck Pendley, Shiaw-Lin Wu, and William S. Hancock. "Development of Different Analysis Platforms with LC– MS for Pharmacokinetic Studies of Protein Drugs." *Analytical chemistry* 81, no. 21 (2009): 8715-8723

CONTACT US

We welcome your questions and comments regarding our products.

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