**AlbuSorb™ PLUS**

*Albumin + IgG Depletion From Serum or Plasma*

- >400 µg total serum protein mass (> 85% Albumin, >85% IgG depleted) from 25 µl serum prep
- Affinity-type equivalence, virtually no cross-reactivity with other proteins
- Disposable, no column regeneration or cross-contamination
- Combines unique bead technology, not based on Blue-dye affinity, with optimized Protein A
- Mild conditions maintains structural integrity and simple transfer to secondary analysis
- Suitable for immunoassay, Western blot, 1 & 2D Electrophoresis, enzyme assay, LC-MS
- Tested species include human, sheep, bovine, rabbit, mouse, rat

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. AlbuSorb™ combines with an optimized immobilized Protein A to create AlbuSorb™ PLUS.

Unlike immuno-affinity, the surfaces utilized are disposable eliminating cycle to cycle variance and cross-contamination. AlbuSorb™ PLUS is supplied as a powder. Simply weigh, centrifuge and/or filter, and recover the {albumin + Immunoglobulin} - depleted serum in the supernatant.

<table>
<thead>
<tr>
<th>Product</th>
<th>Size</th>
<th># Serum Preps</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AlbuSorb™ PLUS</td>
<td>20 preps</td>
<td>20, 25 µl Serum Samples</td>
<td>APK285-20</td>
</tr>
<tr>
<td>AlbuSorb™ PLUS</td>
<td>100 preps</td>
<td>100, 25 µl Serum Samples</td>
<td>APK285-100</td>
</tr>
</tbody>
</table>
### Items

<table>
<thead>
<tr>
<th>Items</th>
<th>Item No APK285-20</th>
<th>Item No APK285-100</th>
<th>Reagent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AlbuSorb™ PLUS</strong></td>
<td>1.2 Gram</td>
<td>6.0 Gram</td>
<td>Supplied</td>
</tr>
<tr>
<td><strong>Binding Buffer BB1</strong></td>
<td>30 ml</td>
<td>150 ml</td>
<td>Supplied</td>
</tr>
<tr>
<td><strong>Spin-X Filters</strong></td>
<td>20</td>
<td>100</td>
<td>Supplied</td>
</tr>
</tbody>
</table>

### Typical Performance

<table>
<thead>
<tr>
<th>Typical Performance</th>
<th>AlbuSorb™</th>
<th>AlbuSorb™ PLUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum Sample Volume</td>
<td>25 µl</td>
<td>25 µl</td>
</tr>
<tr>
<td>Albumin Removal</td>
<td>&gt;90%</td>
<td>&gt;85%</td>
</tr>
<tr>
<td>Immunoglobulin Removal</td>
<td>-</td>
<td>&gt;85%</td>
</tr>
<tr>
<td>Recovered Protein Mass</td>
<td>500-600 µg (Albumin depleted)</td>
<td>400-500 µg (Albumin + Ig depleted)</td>
</tr>
<tr>
<td>LC-MS/MS unique proteins</td>
<td>350-400</td>
<td>350-400</td>
</tr>
<tr>
<td>(single 3 hr gradient)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SELECTIVE BINDING WORKFLOW

1. **Beads in Spin-X tube**
2. **Sample diluted in Binding Buffer added to tube and vortexed**
3. **Mix with beads**
4. **Centrifugation**
5. **Beads deplete high abundance protein(s)**
6. **Flow-through/ unbound fraction contains enriched proteome**
PROTOCOL – Based on processing 25 µl Serum

For best results – the serum should be clear and free of colloidal material. We recommend first filtering through a 0.45 µm syringe-type filter before beginning the prep.

1. Weigh out 60 mg of AlbuSorb™ PLUS powder into the supplied microfuge spin-filters.

2. Add 400 µl of Binding Buffer BB1 to condition the AlbuSorb™ PLUS powder. Shake it manually/ vortex for 3 min and then centrifuge for 2 minutes at 3000 rpm. Discard the filtrate.

3. Repeat step-2

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

5. Centrifuge for 4 minutes at 10,000 rpm, filtrate contains serum proteins depleted of albumin and Immunoglobulins.

Note – when observing proteins on SDS-PAGE (4-15%), other high abundance proteins migrate to the same region as Albumin, and may not be fully resolved.

Scaleable and Versatile Protocol
The protocol can be scaled up or down proportionally to adjust for different serum volumes. The bead amount can be adjusted to accommodate more or less albumin removal.

References

Cerebrospinal Fluid

Synovial fluid

Serum


Cell/Tissue Culture Media
“AlbuSorb™ worked very well for us. We removed at least 90% of the albumin from our 10% FBS conditioned medium samples”, states Joseph Sucic, University of Michigan.

Urine

Patent

CONTACT US
We welcome your questions and comments regarding our products.

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