

Clearing the Way to Discovery With ASK

How the Albumin Segregation Kit (ASK) Helps Researchers Access Hidden Biomarkers in Serum and Plasma

Serum and plasma are powerful biological samples for discovering disease biomarkers, particularly in cancer research. However, identifying low abundant proteins in these samples is a major challenge, one that ITSI Biosciences is helping scientists overcome inexpensively with its innovative Albumin Segregation Kit (ASK).

With over 20 years of experience in bioanalytical innovation, ITSI Biosciences designed the ASK kit to selectively reduce high abundant proteins like albumin and IgG, which often mask critical low-level proteins in traditional analyses. The result? Cleaner samples, clearer data, and more reliable insights at the lowest cost in the industry. ITSI Biosciences offers two versions, ASKc (column based) and ASKs (solvent based) to fit your budget and experimental design.

Why Deplete Albumin and IgG?

Albumin and IgG are the most abundant proteins in human serum and plasma, accounting for up to 70–80% of the total protein content. Their dominance in samples masks clinically relevant low abundant proteins (such as cytokines, tumor markers, etc.), reduces sensitivity of proteomic methods like mass spectrometry and gel electrophoresis and increases background noise, thereby complicating data analysis and interpretation.

By using the ASK kit, researchers can selectively separate albumin and IgG to enhance the visibility and detectability of low abundant proteins that may serve as early disease biomarkers or targets, including those relevant to cancer, cardiovascular diseases, and autoimmune disorders.

What Makes ASK Different?

Targeted Depletion: The kit is engineered to efficiently remove albumin and IgG, preserving low abundant proteins for downstream analysis.

Ready-to-Use & Room Temperature Stable: Like all ITSI products, ASK is easy-to-use and room temperature stable, minimizing shipping costs and simplifying lab logistics.

Compatible with Multiple Platforms: Samples treated with ASK can be analyzed using a wide range of downstream techniques, including:

- ELISA and protein microarrays
- Mass spectrometry (LC-MS/MS)
- Gel electrophoresis (SDS-PAGE, 2D-PAGE)
- Western blotting

Cost-Effective for All Labs: ASK provides a robust, affordable alternative to expensive depletion systems, making high-quality proteomic analysis more accessible.

Empowering Cancer Biomarker Research: Access to low abundant proteins is essential for identifying and validating biomarkers in cancer research. ASK enables researchers to detect tumor-associated proteins present at low levels in early-stage cancers, improve reproducibility and sensitivity in comparative proteomics and increase the dynamic range of proteomic profiling in clinical samples.

With ASKc and ASKs, scientists can dig deeper to identify novel biomarkers thereby maximizing the future diagnostic and prognostic value of serum and plasma, even from limited-volume or archived specimens.

Simple Workflow, High Impact

1. Apply serum or plasma to ASK column (if using ASKc)
2. Bind and remove albumin and IgG
3. Collect the flow-through enriched in low abundant proteins
4. Proceed to mass spec, electrophoresis, or immunodetection

Trusted by Researchers, Backed by Expertise

At ITSI Biosciences, our mission is to develop practical, science-driven and inexpensive solutions that make advanced research more achievable for all laboratories. The ASK kit reflects our commitment to providing reliable, affordable, and innovative tools that help researchers reach their goals faster and easier.

Ready to Unmask Low Abundant Proteins?

To request a datasheet or quote, visit www.itsibio.com, call +1-814-262-7331 or email us at info@itsibio.com.