

Enhancing Cancer Biomarker Discovery with the Protein Fraction Enrichment Kit (ProFEK)

Empowering Discovery Through Smarter Sample Preparation

At ITSI Biosciences, our commitment to advancing life science research is built on two decades of innovation and practical support for laboratories across the globe. This month, we highlight the impact of our Protein Fraction Enrichment Kit (ProFEK), a powerful solution enabling researchers to dig deeper into complex cancer proteomes and identify potential biomarkers with greater confidence and lower cost of sample preparation.

The Cancer Research Challenge

Cancer biomarker discovery is often hindered by the complexity of biological samples. In plasma, serum, tissue lysates, or other complex matrices, highly abundant proteins can obscure the presence of low-abundance targets, many of which may hold the key to early detection, accurate prognosis, or therapeutic response.

Without effective sample pre-fractionation, even the most advanced analytical platforms struggle to achieve the depth and clarity needed for breakthrough discoveries.

ProFEK: Designed to Empower Deeper Proteomic Insights

The ITSI Biosciences Protein Fraction Enrichment Kit (ProFEK) addresses this challenge by enabling efficient, reproducible, and scalable protein pre-fractionation without the need for ultra-centrifugation. By reducing sample complexity prior to mass spectrometry (MS) or other downstream analysis, ProFEK allows for deeper coverage and more accurate quantitation of low-abundance proteins, directly supporting biomarker research in oncology.

Why Cancer Researchers Choose ProFEK:

- ✓ Improved Sensitivity: Increases visibility of low-abundance proteins critical to biomarker discovery.
- ✓ Reliable Reproducibility: Ensures consistency across replicates and studies.
- ✓ Room Temperature Stability: Simplifies storage and shipping logistics globally.
- ✓ User-Friendly Format: No specialized equipment or expertise required.
- ✓ Affordable: Delivers high-performance results without high costs.

Supporting Cancer Research Breakthroughs

Researchers can use ProFEK to unlock novel insights into breast, lung, prostate, and colorectal cancers. By pre-fractionating complex lysates and plasma samples, ProFEK has enabled:

- The study of metastatic renal cell carcinoma (RCC) that is highly resistant to conventional systemic treatments, including chemotherapy, radiotherapy and hormonal therapies,¹
- The study of the stability and subcellular localization of beta-catenin, a protein that plays a major role in cell adhesion and proliferation, and is tightly regulated by multiple signaling pathways,²

“With ProFEK, you are able to pre-fractionate tumor lysates and detect novel proteins e.g. proteins associated with progression in cancer. The kit’s ease of use and reproducibility will save you significant time and resources.”

Empowering Translational Research

ProFEK isn’t just a tool. It is a catalyst for discovery. Whether you're profiling patient-derived samples, validating biomarker panels, or conducting large-scale proteomic screens, ProFEK equips you with the clarity and depth needed to make impactful discoveries.

Want to See What ProFEK Can Do in Your Lab?

Visit www.itsibio.com to learn more about ProFEK and request a sample[#]. Explore how ITSI Biosciences continues to support cancer research with innovative, practical solutions that make a difference.

References

1. Journal of Biomedical Science 2009, 16:82 doi:10.1186/1423-0127-16-82
2. PLoS ONE 2012, 7(4): e33830. doi:10.1371/journal.pone.0033830

Let’s Work Together

Have a cancer biomarker project in mind?
Can ProFEK simplify your complexity?
We’re here to help.

Contact us at: itsi@itsibio.com

Visit: www.itsibio.com

ITSI Biosciences

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[#]Only pay for shipping