



# Unlocking Protein Secrets in Archived Tissue with ToPI-F2

# How the ToPI-F2 Kit Is Transforming FFPE Sample Analysis

Formalin-Fixed Paraffin-Embedded (FFPE) tissue samples are widely used in pathology and biomedical research due to their long-term stability and preservation of tissue architecture. However, the process of formalin fixation introduces crosslinks that make protein extraction and analysis extremely challenging. Until now.

With over 20 years of experience advancing life science research, ITSI Biosciences proudly offers the ToPI-F2 Kit — a powerful, room temperature stable, easy-to-use solution for isolating proteins from FFPE tissue. This unique kit is helping researchers unlock years — even decades — of protein-level data that was previously inaccessible.

#### What Is the ToPI-F2 Kit?

The ToPI-F2 Kit (kit for Total Protein Isolation from Formalin-Fixed Paraffin-Embedded tissue) is specifically designed to extract usable, high-quality protein from FFPE samples without the need for expensive instruments or harsh chemicals. Whether your samples are one year or twenty years old, ToPI-F2 makes it possible to access proteins locked in preserved tissues with efficiency and reproducibility.

## **Key Benefits of ToPI-F2**

#### **Unlock Archival Data**

FFPE samples often come with rich clinical annotations and known patient outcomes. ToPI-F2 enables protein analysis from these invaluable archives, creating opportunities for retrospective biomarker discovery and validation.

## **Mass Spectrometry-Compatible**

Proteins isolated with ToPI-F2 can be confidently analyzed using mass spectrometry, gel electrophoresis, Western blotting, and other proteomics methods.

#### **Room Temperature Stable**

Unlike many reagents that require cold-chain shipping and storage, the ToPI-F2 Kit is stable at room temperature — drastically reducing shipping costs and simplifying logistics worldwide.

## **Cost-Effective and Easy-to-Use**

Designed with busy labs in mind, the kit is affordable, reliable, and simple to use, requiring no specialized equipment or training.

# **Applications in Cancer Research**

The ability to isolate proteins from FFPE tissues has significant implications in oncology, where researchers often rely on archived tumor samples:



- **Biomarker Discovery:** Retrospective studies using FFPE tissue with known patient outcomes can help identify protein biomarkers linked to diagnosis, prognosis, or treatment response.
- **Validation Studies:** Protein signatures discovered in fresh tissues can now be validated using archived FFPE samples.
- **Tissue Proteomics:** The ToPI-F2 Kit enables researchers to profile protein expression patterns in formalin-fixed real patient samples, contributing to personalized medicine and drug development.

### How It Works - At a Glance

- 1. **Deparaffinization:** Remove paraffin using the included reagents.
- 2. **Antigen Retrieval:** Break protein crosslinks while preserving integrity.
- 3. **Protein Solubilization:** Isolate total proteins into solution.
- 4. **Downstream Analysis:** Analyze your proteins via MS, SDS-PAGE, or Western blot.

## Real Science, Real Support

At **ITSI Biosciences**, we are more than a product provider — we are a **scientific partner**. Our bioanalytical expertise ensures that our kits not only work but are optimized to meet the real-world needs of today's biomedical researchers.

Need help with your FFPE analysis project? Our team offers consultation and technical support to help you design experiments and interpret results effectively.

## Ready to Try the ToPI-F2 Kit?

Visit <u>www.itsibio.com</u>, call **+1-814-262-7331** or email us at **info@itsibio.com** for pricing, protocols, or sample requests.