

## PCT µPestle System

For Use with PCT µTubes, PBI Barocyclers, and PCT µTube Adapter Kit Workstation

### PCT µPestles

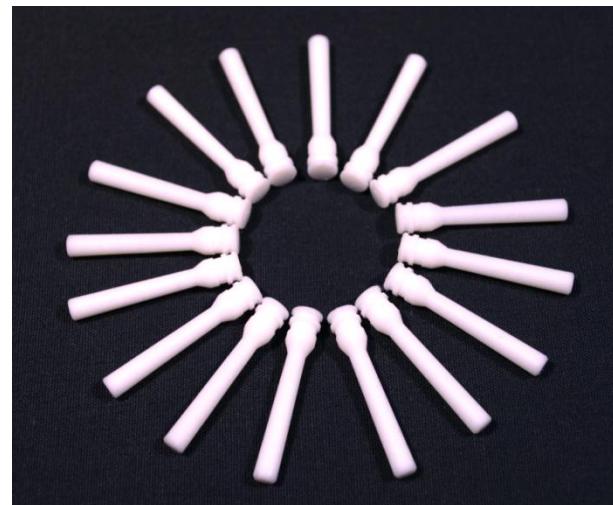
PCT µPestles, in conjunction with PCT µTubes, are designed to enhance extraction of protein, DNA, RNA and small molecules from minute amounts (0.5 – 3.0 mg) of solid tissue in extraction reagent volumes as low as 20-30 µL. PCT µTubes and PCT µPestles use pressure cycling technology (PCT) to effectively disrupt soft tissues and lyse their cells. Under very high hydrostatic pressure, air is fully dissolved into water and many materials, like FEP plastics, contract significantly. As a result of these effects, the tissue sample trapped between the PCT µTube end and the µPestles tip is crushed on every pressure cycle. This mechanical action, combined with the extraction ability of the buffer under high pressure, result in effective homogenization and extraction.

PCT µPestles and PCT µTubes, together with a PBI Barocycler, comprise the **PCT µPestle System**, which provides a faster, safer, and more efficient means of extraction from extremely small amounts of solid samples such as soft animal tissues or biopsies. The PCT µPestle System can be used in any PBI Barocycler.

PCT µPestles are made from Polytetrafluoroethylene (PTFE), a synthetic fluoropolymer of tetrafluoroethylene, also known as Teflon (by DuPont Co). PTFE is practically inert, the only chemicals known to affect it are certain alkali metals and most highly reactive fluorinating agents.

PCT µPestles are available in bulk bags of 96 or in racks of 96. µTubes may be purchased separately in similar formats.

**Patent Pending**



### PCT µTubes

PCT µTubes are designed to meet the critical requirements of modern proteomics. They are made from a fluoropolymer, fluorinated ethylene propylene (FEP). This polymer was selected because of its unique features. FEP is highly inert and retains its integrity within an extremely wide temperature range (-200°C to +100°C). The PCT µTube's outstanding chemical resistance and negligible protein and nucleic acid adsorption, help to ensure nearly complete sample recovery, features that are essential when working with minute samples, as well as for high pressure-enhanced enzymatic proteolysis and many other applications.

### PCT µTube Adapter Workstation

For easier handling, PCT µPestles and PCT µTubes can be used with the PCT µTube Adapter Kit Workstation. This kit, in combination with the Pressure Cycling Technology Sample Preparation System (PCT SPS), provides all the components necessary for processing various types of samples in PCT µTubes using the Barocycler. The kit comes complete with an ergonomically designed, space-saving Work Station as well as tools and hardware, to enable the user to process from one to forty eight PCT µTubes at a time.

The PCT µTube Adapter Workstation is sold separately.



### Features and Benefits of the PCT µPestle System

- Process 0.5 – 3.0 mg of Soft Solid Tissue in 20-30 µL of Sample Processing Reagent
- Compatible with a Wide Variety of Reagents
- Compatible with a Variety of Enzymes, including Trypsin, PNGase F, Chymotrypsin and Many Others
- Inert Single-Use PCT µPestles and PCT µTubes
- Available in Several Convenient Easy-to-Use Formats
- PCT µTubes Have a Writable Surface

\* For Research Use Only

Product*	Catalogue Number
96 PCT µPestle in Bulk	MTWS-MP96-B
96 PCT µPestle in a Rack	MTWS-MP96-RK



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