

PCT μ Pestle System

For Use with PCT MicroTubes, Barocycler 2320EXT or NEP3229, and MicroTube Adapter Kit

PCT MicroPestles

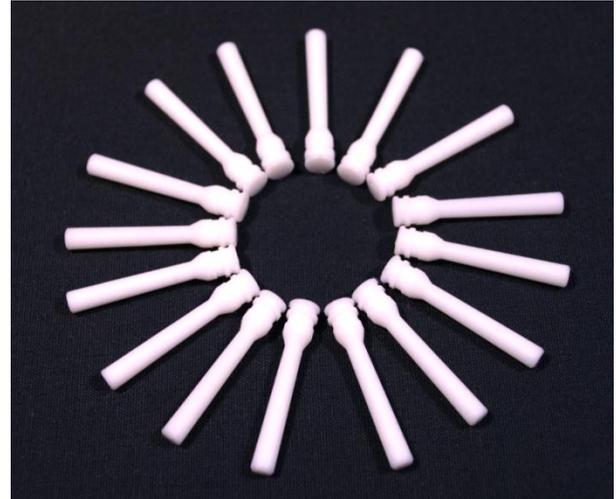
PCT MicroPestles (μ Pestles), in conjunction with PCT MicroTubes, are designed to enhance extraction of protein, DNA, RNA and small molecules from minute amounts (up to 3mg) of solid tissue in 30 μ L of extraction reagent. PCT MicroTubes and PCT μ Pestles are used with Pressure Cycling Technology (PCT) to effectively disrupt soft tissues and lyse 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 MicroTube end and the μ Pestle 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 μ Pestles and PCT MicroTubes, together with a PBI Barocycler, comprise the **PCT μ Pestle 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.

PCT μ Pestles are made from Polytetrafluoroethylene (PTFE), a synthetic fluoropolymer of tetrafluoroethylene, also known as Teflon (by DuPont Co).

PCT μ Pestles are available in racks or in bulk bags of 96. MicroTubes can be purchased separately in similar formats.

Patent Pending



PCT MicroTubes

PCT MicroTubes are designed to meet the critical requirements of modern proteomic analysis by mass spectrometry. MicroTubes are made from a fluoropolymer, fluorinated ethylene propylene (FEP). This polymer was selected because of its unique features; it is highly inert, and retains its integrity within an extremely wide temperature range (-200 $^{\circ}$ C to +100 $^{\circ}$ C). The PCT MicroTube's outstanding chemical resistance, non-wetting surface, and negligible protein and nucleic acid adsorption, help to ensure nearly complete sample recovery, features that are essential for high pressure-enhanced enzymatic proteolysis. PCT MicroTubes are also used for extraction of proteins from minute samples of tissues using PCT MicroPestles.

2320EXT MicroTube Adapter Kit (Catalogue Number MTTB-EXT-01)

The 2320EXT MicroTube Adapter Kit provides all the accessories needed to use MicroTubes and MicroCaps in the Barocycler 2320EXT. The Adapter Kit comes complete with a Capper Tool, MicroTube cartridges, and other tools and hardware, to enable the user to process from one to sixteen samples in PCT MicroTubes simultaneously in the 2320EXT Barocycler.

The PCT MicroTube Adapter Kit is sold separately.

Features and Benefits of the PCT μ Pestle System

- Process up to 3mg of Soft Solid Tissue in 30 μ L of Lysis Reagent
- Compatible with a Wide Variety of Reagents and Buffers
- Inert, Non-Wetting, Single-Use MicroPestles and MicroTubes
- Available in Several Convenient Easy-to-Use Formats
- PCT MicroTubes Have a Writable Surface

| Product* | Catalogue Number |
|--|-------------------------|
| 96 PCT μ Pestle in Bulk | MP-96 |
| 96 PCT μ Pestle in a Rack (No Tubes) | MTWS-MP96-RK |
| MicroTubes in bulk (96) | MT-96 |
| MicroTubes in Rack (96) | MTWS-MT-RK |

* For Research Use Only



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