

# The PCT Shredder

*Gentle, Rapid, and Effective Disruption of Tissues and Organisms for the Extraction of Mitochondria, DNA, RNA, Protein, Lipid, and Small Molecules*

PBI Shredder Systems are low shear mechanical devices for gentle, rapid, and safe disruption of tissues and organisms. Both *The PCT Shredder* and *The SHREDDER SG3* can provide effective extraction of DNA, RNA, proteins, mitochondria, lipids and small molecules from tissues and organisms, when used with Shredder Tubes and your choice of buffers.

Both systems use a variety of Shredder Tubes to directly and rapidly grind solid samples providing easy handling and reducing sample contamination. Additional extraction efficiency can be achieved if this process is combined with pressure cycling technology (PCT).



**The PCT Shredder Driver & Holder**



**Shredder PULSE Tube**

*The PCT Shredder* is a mechanical homogenization system for use with tough, fibrous, and other difficult-to-disrupt tissues and organisms. *The PCT Shredder* is used to rapidly homogenize biological samples directly in Shredder Tubes. This pre-processing method increases sample surface area and, when followed by pressure cycling technology (PCT extraction), permits better access of high pressure extraction fluid to the sample, resulting in improved sample lysis and extraction of the desired analytes.

Shredder Tubes are containers used in the disruption of tough structures such as fibrous muscle tissue, plant cell walls, insect exoskeletons or the cuticle of nematodes, to rapidly achieve excellent yields of high quality nucleic acids, proteins, lipids, and small molecules.

## Features & Benefits:

- Portable
- Sturdy, Stainless Steel Construction
- Cordless
- Compact and Lightweight driver

### Specifications of *The PCT Shredder Kit*

Kit Components	Number
Shredder Driver With Charger	1
Shredder Holder	1
PULSE Tube Tool	1
User Manual	1 Each

### Specifications of Tubes for use with *The PCT Shredder\**

Tube Type	Color	Metal Disk	PCT Compatible
PCT Shredder PULSE Tubes FT500-S	White	No	Yes
PCT Shredder PULSE Tubes FT500-MS	White	Yes	Yes
Shredder Tubes FT500-PS	Coral	No	No
Shredder Tubes FT500-PMS	Coral	Yes	No

#### \*For Research Use Only

- Specifications may be changed without prior notification
- Consult specific applications for sample size and volume requirements
- Autoclave recommended method: Standard liquid setting

#### Relevant Literature:

1. *The PCT Shredder User Manual*
2. [Shredder Application Notes](http://www.pressurebiosciences.com/pub/application-notes-preparations.html) (http://www.pressurebiosciences.com/pub/application-notes-preparations.html)

#### Ordering Information

To order *The PCT Shredder* or Shredder Tubes and other accessories, please contact your local Pressure BioSciences Sales Representative.

Or, please visit: <http://www.pressurebiosciences.com>

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