

# SHREDDER Tubes

*Gentle, Rapid, and Safe Enhanced Disruption of Tissues and Organisms for  
the Extraction of 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).



Various Shredder Tube Parts

## Features & Benefits of the Shredder Tube:

- Available in a Variety of Configurations
- Single-Use Processing Containers
- Standard Tubes for Ambient Pressure Processing
- Specialized Tubes for Ultra-High Pressure Processing
- Metal Inserts for the Toughest of Samples
- Excellent for Collection, Storage, Transport & Processing
- Closed Containers to Help Ensure Safety Throughout the Entire Sample Preparation Process

Shredder Tubes are containers used in the disruption of tough structures such as fibrous muscle or plant tissue, insect exoskeletons and the cuticle of nematodes, to rapidly achieve excellent yields of high quality nucleic acids, proteins, lipids, and small molecules. The combination of *The Shredder* system and Shredder Tubes may allow for the use of less aggressive lysis reagents due to the improved efficiency of sample extraction during pre-processing, whether followed by PCT or other sample preparation methods.

*The PCT Shredder* and *The SHREDDER SG3* are mechanical devices for use with tough, fibrous, and other difficult-to-disrupt tissues and organisms. The Shredder system is used to rapidly homogenize samples directly in Shredder Tubes. This method grinds the sample and can be used as a stand-alone tissue homogenizer or as a pre-processing step that greatly increases sample surface area for improved extraction by pressure cycling technology (PCT extraction), by increasing access of high pressure extraction fluid to the sample, resulting in improved sample lysis and extraction of the desired analytes.

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

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

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

#### \*For Research Use Only

#### Relevant Literature:

1. *The SHREDDER SG3 User Manual and 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 Shredder Tubes or The PCT Shredder System and other accessories, please contact your local Pressure BioSciences Sales Representative.

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

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