

TDzyme®

1. PRODUCT DESCRIPTION

TDzyme® is a tissue dissociation enzyme produced from E. coli by using the manufacturing method of genetic recombination.

- TDzyme® is manufactured by the genetic recombination of collagenase derived from *Clostridium histolyticum*.
- TDzyme® is manufactured in animal source free condition, so there is no risk of contamination with viruses.
- TDzyme® is prepared by the purification of each enzyme with high purity and then mixing them by using column chromatography, which leads to high quality and lot-to-lot consistency.
- TDzyme® is suitable for tissue dissociation and cell culture due to low endotoxin specification.
- TDzyme® is manufactured in lyophilized form, which secures enhanced stability in storage.
- TDzyme® is contained in a smart device enabling simultaneous dissolution and in-line filtration of lyophilized enzyme, which provides easy handling and contributes to reducing any contamination risks.

2. APPLICATION

TDzyme® consists of <TDzyme C> and <TDzyme T>.

- <TDzyme C> is collagenase formulated to contain minimal amount of thermolysin. It is suitable for breakdown of various tissues including pancreatic islets.
- <TDzyme T> is thermolysin and can be mixed with <TDzyme C> to dissociate stronger tissues such as adipose tissues, cartilage, and extracellular matrices of skin and blood vessels.

3. PRODUCT USE

Reconstitute the lyophilized enzyme with **ice-cold Milli-Q water only**. Do not use buffer or culture media. Special formulation of TDzyme® enables quick dissolution, and in-line sterile filtration could be easily done. <TDzyme C> contains small amount of neutral protease (thermolysin), so collagenase could be degraded after reconstitution. Use ice cold Milli-Q water for reconstitution and place solubilized enzyme on ice immediately.

1. Connect a syringe filled with 2mL of ice-cold Milli-Q water to upper female Luer of TDzyme®.
2. Sterile filter could be attached to opposite male Luer for in-line sterile filtration.
3. Inject water into TDzyme® and collect dissolved enzyme.
4. Recovery of residual enzyme in the package with blank shot using the same syringe is recommended for the maximum yield.
5. Instruction video is available at the product website, www.tdzyme.com.
6. Aliquot and place solubilized enzyme on ice immediately.

※ Inhibitor: EDTA, EGTA, cysteine, mercaptoethanol, protease inhibitors

4. STORAGE AND STABILITY

- Please store the eluted enzyme solution immediately on ice.
- Freeze unused enzyme solution as needed.
- Frozen enzyme is stable for one month.
- Do not freeze and thaw repeatedly. Please keep in mind that repeated freezing and thawing of the enzyme solution may result in decreased enzyme activity.