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1. Description

This product is for research use only.

Components 3 vials, containing:
10 mL of Enzyme T
2× 50 mL of Buffer X

Size For up to 100 digestions.
The specified number of digestions depends on the used tissue and is valid when using, for example, 1 mouse embryo in 1 mL of enzyme mix. For details refer to the dissociation protocol.

Storage Upon arrival immediately store Enzyme T in aliquots at -20 °C. Store Buffer X at 2–8 °C upon arrival. The expiration date is indicated on the vial label.

1.1 Principle of the Multi Tissue Dissociation Kit 3

Various tissues or cultured cells from different species, for example, mouse embryos or pluripotent stem cell (PSC)-derived cardiomyocytes, can be dissociated into single-cell suspensions. The tissue is enzymatically digested using the kit components, and the gentleMACS™ Dissociators can be used for the mechanical dissociation steps. After dissociation, the sample is applied to a filter to remove any remaining larger particles from the single-cell suspension.

Cells should be processed immediately for downstream applications, such as cell separation, cell culture, cellular or molecular analyses.

1.2 Background information

The Multi Tissue Dissociation Kit 3 has been developed for the gentle, rapid, and effective generation of single-cell suspensions from various tissue or cultured cells. It is optimized for a high yield of viable cells.

Dissociated cells can be subsequently cultured or isolated using MACS® Technology. Furthermore, the single-cell suspension can be analyzed *in vitro* for phenotype distributions, and other functional, genetic, or proteomic studies performed.

1.3 Applications

- Dissociation of various tissue into single-cell suspensions for subsequent cell separations using MACS Technology.
- Phenotyping or enumeration of cell populations by flow cytometry or fluorescence microscopy.

1.4 Reagent and instrument requirements

- (Optional) gentleMACS Dissociator (# 130-093-235), gentleMACS Octo Dissociator (# 130-095-937), or gentleMACS Octo Dissociator with Heaters (# 130-096-427)
- (Optional) gentleMACS C Tubes (# 130-093-237, # 130-096-334)

For additional requirements please refer to the dissociation protocol at www.miltenyibiotec.com/130-110-204.

2. Reagent preparation

▲ For cell culture experiments subsequent to tissue dissociation, all steps should be performed under sterile conditions.

1. Enzyme T is ready to use. Prepare aliquots of appropriate volume to avoid repeated freeze-thaw-cycles. Store aliquots at -20 °C. This solution is stable for 6 months.
2. Proceed with dissociation protocol of choice. For tissue dissociation protocols, please refer to the product page at www.miltenyibiotec.com/130-110-204.

All protocols and data sheets are available at www.miltenyibiotec.com.

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