Miltenyi Biotec

Multi Tissue Dissociation Kit 3

Order no. 130-110-204

Contents

1. Description

This product is for research use only.

Components	3 vials, containing: **1 vial of Enzyme T (lyophylized powder)** **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	Store at +2 to +8 °C upon arrival. The expiration date is indicated on the vial label. Reconstitute the enzyme before the date indicated on the box label. For information about reconstitution and storage after reconstitution refer to chapter 2.

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

- gentleMACS Octo Dissociator with Heaters or gentleMACS Dissociator with MACSmix™ Tube Rotator (# 130-090-753) in combination with an incubator at +37 °C.
- gentleMACS C Tubes (# 130-093-237)

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. Prepare Enzyme T by reconstitution of the lyophilized powder in the vial with 3 mL of Buffer X. Close the lid and invert the vial. Wait for 5–10 minutes. Do not pipette up and down. Prepare aliquots to avoid repeated freeze-thaw-cycles. Store aliquots at –20 °C. This solution is stable for 6 months after reconstitution.

   ▲ **Note:** Make sure to thoroughly mix the enzyme by inverting the vial immediately before taking out the required reaction volume.

2. Proceed with dissociation protocol of choice.
   For tissue dissociation protocols, please refer to the product page at www.miltenyibiotec.com/130-110-204.

Refer to **www.miltenyibiotec.com** for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com for local Miltenyi Biotec Technical Support contact information.

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