

Cold dissociation enzyme mix- kidney

Product Information

Read this before unpacking or using the product

This instruction contains information that is important for the safe handling, unpacking and preparation of the Cold dissociation enzyme mix- kidney kit for use.

Intended use

Cold dissociation enzyme mix- kidney is a standalone kit, intended for use for dissociation of kidney tissue in single cell workflows. The kit has been optimized for use with semi-automated tissue disaggregation systems.

Cold dissociation enzyme mix- kidney is intended for research or further manufacturing use only. Not intended for clinical procedures or for diagnostic purposes.

Description


Cold dissociation enzyme mix- kidney consists of:

- Enzyme 1
- Enzyme 2
- Buffer A


The recommended sample size is a single mouse kidney that weighs up to 300 mg with 5 mL of enzyme mixture.

In this document, the Cold dissociation enzyme mix- kidney kit is referred to as "the product."

Safety



WARNING
Always use appropriate Personal Protective Equipment (PPE) during operation and maintenance of this product.











CAUTION
Hazardous substances. When using hazardous chemicals, take all suitable protective measures, such as wearing protective clothing, glasses and gloves resistant to the substances used.

For use and handling of the product, refer to the Safety Data Sheet on cytiva.com.

Description of the symbols on the label

The following symbols may be present on the label of the product.

Symbol	Description	Symbol	Description
	Use before this date		Minimum and maximum storage temperature
	Do not re-use		Follow operating instructions
	Product number		Do not use in case the package is damaged
	Batch number		Non-pyrogenic

Required material

The following material is required to use in combination with the Cold dissociation enzyme mix- kidney kit for dissociation of tissue.

- Kidney samples
- Tissue dissociation equipment (optional)
- Standard laboratory material for single cell workflow and cell count operations

Verify the packaging

Step	Action
1	Inspect the box and look for any signs of visible damage.
2	If there is any doubt about the integrity of the packaging, put it aside and contact Cytiva.
3	Make sure the expiry date has not passed. If the expiry date has passed, do not use the product.

Usage

Overview

The following sections describe the recommendations for use of the product in low temperature dissociation and single cell preparation workflows.

Recommended volumes

For each dissociation procedure:

- Measure out the component volumes into a sterile reservoir.
- Keep the kit components and the enzyme mixture on ice until used.

The recommended volume of each component depends on the sample size. One sample is defined a single mouse kidney that weighs up to 300 mg.

The table below gives recommendations for volumes to prepare for three sample sizes. The total volume in the table below is 10% greater than the required volume for the dissociation.

Reagent	Volume for 1 sample	Volume for 2 samples	Volume for 3 samples
Enzyme 1	1 µL	2 µL	3 µL
Enzyme 2	275 µL	550 µL	825 µL
Buffer A	5.224 mL	10.448 mL	15.672 mL
Total volume	5.5 mL	11 mL	16.5 mL

Dissociation protocol

Perform the dissociation according to the following recommendations:

- Dissociate the kidney tissue according to your internally validated procedure at 4°C.
- Keep all reagents cold and perform all steps swiftly to reduce cellular aggregation.

For detailed protocols for use with the VIA Extractor™ tissue disaggregator instrument, refer to the *Procedure* found on the product webpage at cytiva.com.

Post-dissociation protocol

After the dissociation protocol, prepare the cells for counting or the single cell workflow according to your internally validated procedure.

Note: To reduce cellular aggregation, perform the post-dissociation steps swiftly, keeping all reagents and samples on ice.

For a single cell workflow, it is recommended to:

- Strain the sample.
- Remove red blood cells (RBCs) using 1X RBC lysis solution.

For a detailed post-dissociation protocol, refer to the *Procedure* found on the product webpage at cytiva.com.

Environmental conditions

Storage

Store the product in a clean and dry environment without chemical or biological contamination, under the following conditions.

Parameter	Storage
Temperature	2°C to 8°C

Shelf life

The product has a shelf life of 12 months.

Disposal

Refer to the *Safety Data Sheet* on cytiva.com for disposal instructions for the enzymes and buffer in this kit.

- The outer packaging and insert are made of thin board and is Forest Stewardship Council (FSC) compliant and fully recyclable. FSC certification ensures that products come from responsibly managed forests that provide environmental, social and economic benefits. Recycle the cardboard according to national and local environmental regulations.
- The Buffer A bottle is made of high-density polyethylene (HDPE) and is recyclable according to SPI code 2. The bottle cap is made of polypropylene (PP), which is recyclable according to SPI code 5. Wash the bottle before disposal.
- The Enzyme 1 bottle is made of PP, and the Enzyme 2 bottle is made of HDPE. The enzyme bottles cannot be recycled due to contact with the enzymes. Refer to local instructions for safe disposal of containers that have been used for prior storage of chemicals in a laboratory environment.

Ordering information

For ordering information, visit cytiva.com.



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