

# Recombinant Trypsin-EDTA Solution (1×)

Please read the datasheet carefully prior to use.

Cat. No. FG302

Version No. Version 1.0

Storage: at 2-8°C in the dark for one year

## Description

Recombinant Trypsin-EDTA Solution (1×) is an Xeno-free, no phenol red, and ready-to-use solution for cell digestion. The main component is recombinant trypsin, which has the same enzymatic properties as animal-derived porcine trypsin, which can specifically cleave peptide bonds at the C-terminus of lysine and arginine residues, hydrolyze intercellular proteins. Thereby cells are detached from the cell culture medium and dispersed between cells. It can replace porcine pancreas-derived trypsin that used for cell or tissue digestion, especially for the digestion of cells in serum-free culture systems.

## Features

- Xeno-free, no antibiotics, no phenol red
- Mild action, little cell damage, digestion for 15 minutes has no effect on cell morphology and proliferation rate
- Activity of trypsin can be reduced by dilution without serum termination

## Kit Contents

| Component                              | FG302-01 |
|--|----------|
| Recombinant Trypsin-EDTA Solution (1×) | 100 ml   |

## Protocol

Taking the subculture of human umbilical cord mesenchymal stem cells(hUC-MSCs) cultured in T75 culture bottles as an example, we recommended serum-free medium (TransGen, Cat: MM101) for the culture of hUC-MSCs.

1. Equilibrate reagents: Pre-equilibrate recombinant trypsin solution (1×), PBS, and MSC serum-free medium (TransGen, Cat: MM101) at room temperature.
2. Culture: For hUC-MSCs culture, cells are passaged when the cell confluence reaches 80-90% under a microscope (Do not allow cells confluence more than 90% or completely cover the bottom of the bottle).
3. Wash: Aspirate the culture medium in the culture flask, and wash the cells once with 15 ml of PBS for each T75 culture flask.
4. Digest: Aspirate the PBS in the culture bottle, add 2-5 ml of recombinant trypsin solution (1×), so that the digestion solution evenly covers the bottom of the bottle, and digest at 37°C for 1-3 minutes. Gently tap the wall of the culture bottle to make the cells fall off. (If the digestion is not complete and the cells do not fall off after tapping, digestion can be continued at 37°C for 1-3 minutes)
5. Dilute and Resuspend: Dilute with an equal volume of culture supernatant (or basal medium, or PBS buffer), collect the cell suspension, and disperse by pipetting.
6. Centrifuge: Centrifuge at 300×g for 5 minutes and discard the supernatant.
7. Seed: Resuspend cells in serum-free medium equilibrated at room temperature.

## Notes

- It is not recommended to pre-incubate this product directly at 37°C, otherwise the activity of recombinant trypsin will be lost.
- The optimal working temperature of recombinant trypsin solution (1×) is 25°C~37°C. Without pre-equilibration, digestion may take longer.
- The optimal digestion time should be determined based on the properties of different tissues and cells.
- Sterile processing.

**For research use only, not for clinical diagnosis.**

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