

0.05% Trypsin-EDTA, phenol red (1×)

Description

TargetMol's 0.05% Trypsin-EDTA, Phenol Red (1×) is a ready-to-use cell dissociation solution specifically designed for routine passaging, harvesting, and single-cell preparation of adherent cells. This product contains trypsin and EDTA, which effectively disrupt cell-matrix and cell-cell interactions, enabling gentle and efficient detachment of cells. The inclusion of phenol red as a pH indicator allows real-time visual monitoring of the dissociation process.

The optimized formulation ensures complete cell detachment while maximizing the preservation of cell membrane integrity and biological activity. It is suitable for the culture and handling of a wide range of mammalian adherent cell lines. This product is supplied as a 1× working solution and can be used directly without dilution. It is ideal for routine cell culture, passaging, pre-cryopreservation processing, and other common laboratory applications, making it an essential reagent in cell culture laboratories.

Features

- **Ready to Use:** No additional dilution or preparation is required; can be used directly for cell dissociation.
- **Gentle & Efficient:** 0.05% trypsin effectively detaches adherent cells while minimizing damage to cell membranes and surface proteins.
- **Synergistic Action with EDTA:** EDTA chelates Ca^{2+} and Mg^{2+} ions, enhancing the disruption of cell-cell adhesion and improving dissociation uniformity.
- **Contains Phenol Red Indicator:** Allows real-time monitoring of the dissociation process, with intuitive color changes indicating progress.
- **Consistent Quality:** Manufactured with high-purity trypsin, sterile-filtered to ensure cell culture safety and reproducibility.
- **Broad Compatibility:** Suitable for routine passaging and dissociation of a wide range of mammalian cell lines.

Application

For dissociation, passaging, and collection of adherent cells.

Instructions

1. Preparation

a) Take the trypsin solution from the refrigerator and pre-warm it in a 37 °C water bath or incubator for 5-10 minutes.

Note: Do not prewarm the entire bottle; only take out the volume you need.

b) Remove the old medium from the culture dish or flask, and gently rinse once with sterile PBS, Hanks, or serum-free medium to remove residual serum.

Note: Serum inhibits trypsin activity.

2. Trypsinization

a) Add an appropriate amount of trypsin solution to just cover the cell layer. Incubate at room temperature for 1-5 minutes, gently swirling the culture vessel occasionally to ensure even contact of trypsin with the cells.

b) Observe under a microscope. dissociation is sufficient when cells begin to round up and detach from the surface.

3. Termination of Trypsinization

a) Immediately add an equal volume or twice the volume of complete medium containing serum to stop the action of trypsin.

b) Gently pipette to mix, ensuring the cells are fully detached into a single-cell suspension.

4. Cell Collection and Culture

a) Transfer the cell suspension to a centrifuge tube and centrifuge at 1,000 rpm for 3-5 minutes.

b) Discard the supernatant and resuspend the cells in fresh culture medium. Proceed with counting, passaging, or seeding according to experimental requirements.

Storage

Store at 4 °C for 3 months; -20 °C for 2 years.


Precautions

1. After use, please immediately seal and store at 4 °C. For long-term storage, keep at -20 °C and avoid repeated freeze-thaw cycles.
2. Avoid prolonged trypsin dissociation, as this may cause cell damage or death.
3. For sensitive cells (e.g., primary cells or stem cells), consider shortening the dissociation time or diluting the trypsin concentration.
4. This product contains phenol red as an indicator. If the pH slightly drops for any reason, the solution color may change from red to orange. The orange solution can still be used normally, or, if needed, adjust the pH slightly with sterile 2 M NaOH before use.
5. Observe aseptic techniques to prevent microbial contamination.
6. The product is for R&D use only, not for diagnostic procedures, food, drug, household or other uses.
7. This product may irritate skin, eyes, and the respiratory tract. Please wear a lab coat and disposable gloves.


How to Select Trypsin Cell Dissociation Solutions

	Cells are sensitive to trypsin & dissociation time is difficult to control	Strong dissociation	To monitor the dissociation process	Without Phenol Red	Without EDTA
C0200 0.05% Trypsin-EDTA, phenol red (1x)	✓		✓		
C0201 0.25% Trypsin-EDTA, phenol red (1x)		✓	✓		
C0202 0.25% Trypsin-EDTA (1x)		✓		✓	
C0203 0.25% Trypsin, phenol red (1x)			✓		✓

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