

# 0.25% Trypsin-EDTA (1x), phenol red

## 1 Components

Component	HY-K3007-100 mL	HY-K3007-500 mL	HY-K3007-5 L
0.25% Trypsin-EDTA (1x), phenol red	100 mL	100 mL×5	100 mL×50

## 2 Introduction

MCE 0.25% Trypsin-EDTA (1x), phenol red consists of dried trypsin powder (a mixture of proteases from porcine pancreas, irradiated and sterilized) dissolved in EDTA. MCE Trypsin hydrolyzes intercellular proteins and disperses primary tissues or adherent cells into individual cells, and can be widely used for cell dissociation, cell culture passaging and primary tissue dissociation.

## 3 Characteristics

With (+)	Without (-)
Trypsin (2500 mg/L)	
EDTA-4Na·2H <sub>2</sub> O (380 mg/L)	
Phenol Red (10 mg/L)	

## 4 General Protocol

Cell dissociation:

1. Aspirate the culture medium and wash the cells twice with sterile PBS, Hanks or serum-free culture medium to remove residual serum.
2. Add the pre-warmed trypsin-EDTA dissociation solution to cover the cells and incubate at room temperature for approximately 2 minutes. Note that the actual incubation time varies with the cell line used.
3. Observe under the microscope, and when  $\geq 90\%$  of the cells are detached, terminate the dissociation by adding twice the volume of serum-containing complete medium.
4. Centrifuge at  $200\times g$  for 5-10 minutes and resuspend the cell precipitates in complete medium containing serum for subsequent experiments.

Tissue dissociation:

Determine the optimal conditions based on relevant experience and literature, as the digestion time required varies from different tissues.

## 5 Storage

-20°C, 2 years.

## 6 Precautions

1. Trypsin dissociation of cells should not be too long, to avoid affecting the cell attachment and growth condition.
2. Aseptic operation in the whole process to avoid contamination of the dissociation solution.
3. Avoid repeated freezing and thawing, and it is recommended to freeze in separate packages. For short-term frequent use, it can be stored at 4°C, and the storage condition should not exceed one month.
4. This product is for R&D use only, not for drug, household, or other uses.
5. For your safety and health, please wear lab coat and disposable gloves.

## 7 Appendix: The fumulation of MCE 0.25% Trypsin-EDTA (1x), phenol red

Components	MW.	g/L	mM
<b>Inorganic Salts</b>			
KCl	75.0	0.4	5.33
KH <sub>2</sub> PO <sub>4</sub>	136.0	0.06	0.44
NaHCO <sub>3</sub>	84.0	0.35	4.17
NaCl	58.0	8	137.93
Na <sub>2</sub> HPO <sub>4</sub> ·7H <sub>2</sub> O	268.0	0.09	0.34
<b>Other Components</b>			
D-Glucose (Dextrose)	180.0	1	5.56
EDTA-4Na·2H <sub>2</sub> O	416.2	0.38	0.91
Phenol Red	398.0	0.01	0.03
Trypsin	23800.0	2.5	0.11