



# Recombinant Trypsin Solution

An animal components-free cell dissociation solution, designed as an alternative to porcine trypsin for the dissociation of cells

#### **Recombinant Trypsin Solution**

Cat. No.: 03-078-1B 100ml 03-078-1C 20ml

#### Recombinant Trypsin-EDTA Solution

Cat. No.: 03-079-1B 100ml

Store at: -20°C

# Instructions for Use

# **Product Description**

Special, animal components-free (ACF) recombinant trypsin solutions, developed as an alternative to porcine trypsin. The solutions do not contain any chymotrypsin, carboxypeptidase A, and other protease contaminant.

Recombinant Trypsin Solution formulations were developed for efficient dissociation of adherent cell types from surfaces and tissues and were optimized for sensitive cells, such as primary human mesenchymal stem cells (hMSC). The addition of EDTA usually accelerates the dissociation phase.

Recombinant Trypsin Solutions are pure enzyme solutions, which help maximize the yield of functionally viable cells from culture vessels, while preventing the toxicity effect induced by other non desirable proteases. In addition, recombinant trypsin eliminates the risk of viruses, or other potential adventitious agents found in animal derived components.

#### Source

Recombinant Trypsin Solutions are produced by submerged microbial fermentation. They are derived from a production process which does not utilize any raw materials and/or processing aids of animal origin.

#### **Features**

- Ready-to-use
- Non-animal or human origin
- Increased specificity
- Eliminates contaminating activities found in bulk production of enzymes
- Free from undesirable proteases such as carboxypeptidase A and chymotrypsin
- Optimized for hMSCs (from variety of sources), cultured in both serum-free and serum-containing systems

#### **Precaution and Disclaimer**

- 1. For in vitro use only.
- 2. Do not use if a visible precipitate is observed in the solution.
- Do not use beyond the expiration date indicated on the product label.

#### Instructions for use

The following instructions are applicable for most cell lines. Actual procedures and concentrations should be determined by experience with individual cell lines (see notes below).

- 1. Wash the cells with DPBS w/o Ca, Mg (Cat No. 02-023-1).
- 2. Add 1ml of Recombinant Trypsin Solution to each T-25 tissue culture flask.
- 3. Incubate the flask at 37°C for 2min or longer as necessary. Verify cell's detachment by microscope.
- 4. When cells are completely detached, quickly suspend the cells in 5-10 ml of diluted Soybean Trypsin Inhibitor (SBTI, Cat. No. 03-048-1).
- 5. Pellet the cells by centrifugation, and discard the supernatant.
- 6. Suspend the cells in growth medium, and seed as desired.

#### Notes

- It is recommended to divide the solution into small aliquots and re-freeze, in order to avoid future freeze and thaw. After thawing, the solution is stable for 5 days at 2-8°C.
- The time needed to dislodge cells will vary depending upon cell type, cell density and medium used.

## **Quality Control**

Recombinant Trypsin Solution performance is tested on hMSCs. Additional standard evaluations are pH, Osmolality and sterility tests.

### **Auxiliary products**

Product	Cat. No.
Dulbecco's PBS (w/o Ca & Mg)	02-023-1
Cell Dissociation Solution — Non Enzyamtic	03-071-1
MSC Dissociation Solution	03-075-1
Soybean Trypsin Inhibitor (SBTI)	03-048-1

Product	Cat. No.	Unit Size	Storage Temp.
MSC NutriStem® XF	05-200-1A	500ml	2-8°
Basal Medium	05-200-1B	100ml	2-8°
MSC NutriStem® XF	05-201-1U	3ml	-20°
Supplement Mix	05-201-1-06	0.6ml	-20°
MSC Attachment	05-752-1S	0.1ml	2-8°
Solution	05-752-1F	1ml	2-8°





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