

## Product Information

### Trypsin-EDTA

Product	Volume	Cat. No.
Trypsin-EDTA (0.05 %) in DPBS (1x)	100 ml	N0100-720
Trypsin-EDTA (0.5 %) in DPBS (10x)	100 ml	N0100-730

#### Product Description

Trypsin-EDTA solutions are used to detach adherent cells from culture surfaces. They are composed of natural porcine pancreas-derived trypsin and EDTA. The concentration of trypsin necessary to dislodge cells from their substrate is dependent primarily on the cell type and the age of the culture. Various formulations should be tested to determine the best product for a specific application.

#### Product Specifications

pH	7.0 – 7.6
Osmolality <sup>^</sup> N0100-720	250 – 320 mOsm/kg
Osmolality <sup>^</sup> N0100-730	280 – 360 mOsm/kg
Cell Detachment	Tested
Sterility	Tested
Storage	Store at ≤-15°C.

#### Formulation

Component	N0100-720 (g/l)	N0100-730 (g/l)
EDTA tetrasodium	0.18	2.00
Potassium chloride	0.20	-
Potassium phosphate monobasic anhydrous	0.20	-
Sodium chloride	8.00	9.00
Sodium phosphate dibasic anhydrous	1.15	-
Trypsin	0.50	5.00

#### Prepare 1x solutions from 10x concentrates (N0100-730)

To prepare an acceptable final 1x solution, perform the following procedure under aseptic conditions.

1. The product can either be thawed in a +37°C water bath or overnight at +2°C to +8°C.
2. Aseptically dilute 100 ml of 10x concentrate with approximately 850 ml of a sterile Ca<sup>2+</sup> and Mg<sup>2+</sup>-free salt solution (see related products). Mix completely.
3. If necessary, adjust the pH as necessary with 1 N HCl or 1 N NaOH to pH 7.2 – 7.8.
4. Adjust the final volume with the sterile Ca<sup>2+</sup> and Mg<sup>2+</sup>-free salt solution.

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5. Dispense the solution into sterile containers. Cap the bottles tightly with sterile closures and store at  $\leq -15^{\circ}\text{C}$ .

#### Detachment of adherent cells using Trypsin-EDTA

Trypsin-EDTA (0.05%) in DPBS (1x) solution is supplied as a sterile, ready-to-use, frozen liquid. For 10x Trypsin-EDTA (N0100-730) follow first protocol above.

This entire procedure should be done in a laminar flow hood using proper aseptic technique.

1. The product can either be thawed in a  $+37^{\circ}\text{C}$  water bath or overnight at  $+2^{\circ}\text{C}$  to  $+8^{\circ}\text{C}$ .
2. Carefully aspirate all of the media from the cell culture flask.
3. Rinse cells with  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$ -free salt solution (see related products), aspirate, and discard.
4. Prewarm the trypsin solution in a  $+37^{\circ}\text{C}$  water bath. Add enough trypsin solution to completely cover the cells.
5. Incubate the flask at  $+37^{\circ}\text{C}$ , or for more sensitive cultures, at room temperature or  $+2^{\circ}\text{C}$  to  $+8^{\circ}\text{C}$ .
6. When the trypsinization process is complete, cells will appear rounded upon microscopic examination and the solution in the flask will appear cloudy. Check the flask often to avoid overexposure. Trypsin can cause cellular damage and time of exposure should be kept to a minimum.

The time required to detach cells from the culture surface is dependent on the cell type, the age of the culture, population density, serum concentration in the growth medium and time since last subculture.

7. Neutralize trypsin either with serum containing medium or trypsin inhibitor. Gently centrifuge the cell suspension and discard the trypsin-containing supernatant.
8. Resuspend the cell pellet with fresh medium and count or culture as desired.

#### Related Products

Product	Cat. No.
Dulbecco's PBS (1x), w/o Ca & Mg, w/o Phenol Red	H0500-540
Hank's Balanced Salts, w/o Ca & Mg, w/o Phenol Red	H0500-600

#### Precautions and Disclaimer

This product is for research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.