

### Product Name

Name: Trypsin EDTA Solution C (0.5%), EDTA (0.2%), 10X Conc., without Phenol Red

Cat. No.: C3535-0100

Size: 100 mL

### Product Description

Trypsin, an animal-derived product, is the most commonly used enzyme for harvesting cells in culture. Trypsin is a pancreatic serine protease (proteolytic enzyme) with specificity for peptide bonds involving the carboxyl group of the two basic amino acids, arginine and lysine. Purified trypsin from porcine pancreas often contains a crude mixture of lipases, nucleases, polysaccharides, and proteases.

VivaCell's Trypsin is designed not only to gently dissociate cells from almost any support substrates but also from each other in order to actualize cell manipulation techniques in addition to other studies that require intact cell surface proteins. As a solution, trypsin, is available in a varied array of formulations with or without EDTA and phenol red. EDTA is a chelator that binds calcium and magnesium ions which may otherwise inhibit the trypsin activity. Trypsin is often the subculturing agent of choice for cell dissociation of adherent cells, although the treatment may be cytotoxic if prolonged. Over-trypsinization is a common cause of subculture problems.

Cat. No.	C3538-0500	C3530-0100	C3532-0500	C3533-0500
Product	Trypsin Solution B (0.25%), without Calcium and Magnesium, without Phenol Red	Trypsin EDTA Solution A (0.25%), EDTA (0.02%), with Phenol Red	Trypsin EDTA Solution B (0.25%), EDTA (0.05%), with Phenol Red	Trypsin EDTA Solution C (0.05%), EDTA (0.02%), with Phenol Red
Component				
Trypsin	0.25%	0.25%	0.25%	0.05%
EDTA		0.02%	0.05%	0.02%
NaCl	✓	✓	✓	✓
KCl	✓	✓	✓	✓
Na <sub>2</sub> HPO <sub>4</sub>	✓			✓
KH <sub>2</sub> PO <sub>4</sub>	✓			✓
D-Glucose		✓	✓	
Phenol Red		✓	✓	✓
NaHCO <sub>3</sub>		✓	✓	
CaCl <sub>2</sub> · 2H <sub>2</sub> O				
MgCl <sub>2</sub> · 6H <sub>2</sub> O				

**Tips for using trypsin solution:**

- Trypsin in the 10X concentrated form may be diluted to 1X or higher concentration using a sterile balanced salt solution without calcium and magnesium. The trypsin concentration required for cell dissociation varies depending on the cell type and experimental requirements.
- Cells must NEVER remain in the trypsin solution for longer than 3 - 5 min as they may be seriously damaged in the process (due to excessive digestion of the extracellular proteins).
- Cells should NEVER be left without a fluid layer as they will dry up very quickly.
- Do not permit prolonged growth of the cells on culture-ware (i.e., after 5 - 7 days) as they will be very difficult to dissociate from each other.

**Predominant Characteristics**

- Animal-derived source
- Containing high concentration of trypsin (0.5%) and EDTA (0.2%)
- Cell culture tested at 1X
- Suitable for cell culture applications
- Long-term storage when handled properly under defined conditions

**Storage and Stability**

- The product should be kept at **-20°C** for long term storage. After the first use, the remaining should be aliquoted into smaller volumes and be kept at -20°C. If stored at 4°C, it should be used within one month.
- The product is **light-sensitive** and therefore should be protected from light.
- Shelf life: 18 months from the date of manufacture.
- The product should be aliquoted in smaller volumes to avoid repeated freeze and thaw.

**Procedure**

- Take using a T25 culture flask as an example, during cell passage, aspirate the medium from the culture flask, add 3 mL PBS or DPBS (without calcium and magnesium) to rinse the cells, and then aspirate the PBS or DPBS.
- Add 1 mL diluted Trypsin EDTA Solution C to infiltrate the entire bottom surface and put the flask into a 37°C incubator for 3 - 5 min (adjust the specific digestion time according to the characteristics of the cell type).
- When most of the cells round up or detach from the bottom of the flask, mix with 3 mL of complete medium, centrifuge at 200 - 250 x g for 3 min, and aspirate the supernatant.
- Resuspend the cells with a complete medium and passage as needed.

**Quality control**

Trypsin EDTA Solution C (0.5%), EDTA (0.2%), with Phenol Red is tested for sterility, pH, osmolality, mycoplasma, and endotoxin concentration. In addition, each batch is tested for cell growth performance.

**Precaution and Disclaimer**

For research use only, not for clinical diagnosis, and treatment.