Product Name

Name: Trypsin Solution A (0.25%), with Calcium and Magnesium, without Phenol Red

Cat. No.: C3534-0100

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 as well as 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. 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. In a serum-free culture experiments, the trypsin reaction may be terminated by separating the cells from the solution via centrifugation or by utilizing trypsin inhibitors such as Soybean Trypsin Inhibitor (SBTI).

Cat. No.	C3534-0100	C3538-0500	C3530-0100	C3532-0500	C3533-0500
Product / Component	Trypsin Solution A (0.25%), with Calcium and Magnesium, without Phenol Red	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
Trypsin	0.25%	0.25%	0.25%	0.25%	0.05%
EDTA			0.02%	0.05%	0.02%
NaCl	✓	✓	✓	✓	✓
KCl	✓	✓	✓	✓	✓
Na_2HPO_4	✓	✓			✓
KH_2PO_4	✓	✓			✓
D-Glucose			✓	✓	
Phenol Red			✓	✓	✓
$NaHCO_3$			✓	✓	
$CaCl_2 \cdot 2H_2O$	✓				
$MgCl_2 \cdot 6H_2O$	✓				

Tips for using trypsin solution:

- Cells must NEVER remain in the trypsin solution for longer than 3 - 5 min as they may be seriously damaged in the process (i.e., damage to 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
- Cell culture performance tested
- 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**. 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 not be left in the 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 in the culture flask, add 3 mL PBS or DPBS (without calcium and magnesium) to rinse the cells, and then aspirate.
- Add 1 mL Trypsin Solution A to infiltrate the entire bottom surface, and put the flask into a 37°C incubator to digest for 3 - 5 min (adjust the specific digestion time according to the characteristics of the cell type).
- When most of the cells come off the bottom of the dish, mix with 3 mL 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.

Precaution and Disclaimer

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