BioArtha Labs PVT LTD
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DATA SHEET

Rev.ver: 01

1. Identification

Product Name: **Trypsin-EDTA Solution 10x 0.5% Trypsin, 0.2% EDTA in 0.85% normal saline without Phenol red, Sterile filtered**

Catalog.no: **CCDR021**

2. Description

Trypsin-EDTA Solution 10x (0.5%) is a high-concentration, sterile, dilutable enzyme solution formulated for use in the preparation of working-strength trypsin solutions for cell culture applications. It contains 0.5% (w/v) trypsin and 0.2 % (w/v) EDTA disodium salt in 0.85% saline solution without calcium, magnesium, or phenol red, ensuring optimal enzyme activity and reduced interference during cell detachment.

Trypsin, a serine protease that cleaves peptide bonds in proteins, enabling the dissociation of adherent mammalian cells and tissues, aided by EDTA which chelates divalent cations (Ca^{2+}, Mg^{2+}) that promote cell adhesion. The absence of these ions enhances detachment efficiency while minimizing cell damage. The reagent is sterile-filtered (0.22 µm), ready for direct use in aseptic cell-culture procedures and is suitable for routine sub-culturing, passaging, and harvesting of adherent cell lines in research and biotechnology applications.

The 10x concentrated format provides flexibility, allowing users to prepare 1x working concentrations (e.g., 0.05% trypsin) by dilution with compatible buffers.

3. Storage/Stability

Store the product at -20°C. This has an expiration period of 1 year. Reagent label bears expiration date.

4. Procedure

Preparation of Working Solution

To prepare 1x (0.05%) Trypsin Solution from this 10x (0.5%) concentrate:

1. Thaw the 10X trypsin stock solution at room temperature.
2. Mix gently by inversion—do not vortex.
3. Dilute 1 part of the 10X Trypsin Solution with 9 parts of sterile Hanks' Balanced Salt Solution (HBSS) or Dulbecco's Phosphate Buffered Saline (DPBS) without calcium and magnesium.
4. Filter sterilize if required (0.22 µm filter).
5. Store the prepared 1x working solution at 2–8 °C for short-term use (≤2 weeks) or aliquot and store at −20 °C for long-term storage.

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Directions for Use: Cell Dissociation

1. Remove the used medium from the culture vessel.
2. Wash the cell layer once with salt solution (without calcium and magnesium) and discard.
3. Add enough Trypsin solution 1x to cover the cells.
4. Gently rock the vessel so the solution spreads evenly.
5. Incubate at 37 °C for 2–3 minutes and watch under a microscope until cells round up and detach. If needed, tap the vessel gently to help release cells.
6. Add growth medium with serum to stop trypsin activity.
7. Pipette gently to make a single-cell suspension.
8. Count and transfer cells for subculture

5. 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.