0.25% Trypsin-EDTA Solution (1X), phenol Red

Contains 0.25% gamma irradiated porcine trypsin (1:250) and 0.9 mM EDTA·4Na in HBSS without Ca^{2+} and Mg^{2+} With phenol red

Catalog Number **PTS-BTG-XXX-000**
Store at less than ≤-10°C

Product Description
In adherent cell culture, trypsin or trypsin-EDTA (ethylenediaminetetraacetic acid) is used for the detachment of cells from a culture dish or flask, and degradation of cell-cell adhesion. Trypsin, a proteolytic enzyme, can cleave cell adhesion proteins and the collagen that is pre-coated on culture surfaces. EDTA, a chelating agent, can bind with cations such as Ca^{2+} and Mg^{2+} which inhibit trypsin activity and are involved in cell adhesion. Subculture usually requires chelation of cations and proteolytic reactions, but the severity of the treatment (high concentration or time length) will reduce the viability and the rate of cell growth because of the over-degradation of cell surface proteins and deficiency of essential cations. A protocol should be selected with the least severity possible while ensuring it is compatible with the generation of a single cell suspension of high viability.
PTS-BTG-XXX-000 contains 0.25% (w/v) gamma irradiated porcine trypsin (**PTR-BTG-XXX**), and 0.9 mM EDTA·4Na·$2H_2O$ in Hanks' balanced salt solution (HBSS). **PTS-BTG-XXX-000** is sterile filtered, and cell culture tested.
The concentration of Trypsin-EDTA is strongly influenced by cell type, culture type, and characteristics of cell growth. It is important to review the literature for recommendations concerning medium, supplementation and physiological parameters required for a specific cell line.

Storage/Stability
Trypsin-EDTA solutions should be kept at ≤ -10°C in the dark for long term storage but can be stored at 2-8°C for one week. Deterioration of the solution may be recognized by:
(1) Precipitate or particulate matter throughout the solution
(2) Cloudy appearance
(3) Color change
(4) pH change
The nature of supplements added may affect storage conditions and shelf life of the medium. Product label bears expiration date.

Biological Performance Characteristics
The detachment and growth-maintaining capacities of Trypsin-EDTA are tested in a medium supplemented with 10% FBS using appropriate adherent cell lines.

Precautions
For *In Vitro* Use Only

Instructions For Use
1. Remove all medium from culture vessel.
2. Wash the cell monolayer with Ca^{2+} and Mg^{2+} -free salt solution, D-PBS or HBSS. Remove salt solution.
3. Dispense proper volume of Trypsin-EDTA solution to culture vessel to cover the monolayer of cells completely.
4. Replace the closed culture vessel in incubator at 37°C for 2-5 minutes.
5. Check a progress with an inverted microscope.
6. Cells can be re-suspended by gently pipetting with medium containing serum. Serum inhibits further tryptic activity.

PTS-BTG-XXX-000

Components	
Porcine Trypsin	0.25% (w/v)
EDTA·4Na·$2H_2O$	0.9 mM
Solvent agent	HBSS

Product Profile	
Appearance	Red transparent solution
pH at RT	7.0 – 8.0
Osmolality	265 - 315 mOsm/kg H_2O
*Gamma Irradiation	25 - 40 kGy
*PPV	Not Detected
*Micoplasma	Not Detected
Sterility	Sterilized by 0.2 μm filtration system.

*performed on powdered porcine trypsin.

References
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Lodish, H. et. Al., Molecular Cell Biology, Darnell, J.E.-3rd edi., Scientific American Books, INC., 1995, New York, USA.
Darling, D.C. and Morgan, S.J., Animal Cells; Culture and Media; Essential Data, Rickwood, D. and Hames, B. D.-edi, John Wiley and Sons, Inc., 1994, Chichester, UK.