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Product Information

TrypZean® Solution, 1×
Catalog Number **T3449**

Storage Temperature -20 °C

Product Description

TrypZean Solution, 1× is formulated with TrypZean, a recombinant bovine trypsin expressed in corn and manufactured by Sigma-Aldrich utilizing ProdiGene's proprietary transgenic plant protein expression system. This product is optimized for cell dissociation in both serum-free and serum-supplemented adherent cell cultures.

TrypZean Solution provides the following features and benefits:

- Animal component-free – eliminates the risk of viruses, BSE, or other potential adventitious agents
- TrypZean is recombinant trypsin – using the same enzyme (with the same kinetics) for cell detachment means minimal protocol changes
- Enzyme inhibition – soybean trypsin inhibitor and other inhibitors work the same with TrypZean as they do with native trypsins (weight-to-weight basis)
- High purity – TrypZean provides increased specificity and eliminates contaminating activities found in lower purity enzymes
- Convenience – TrypZean solution is a sterile-filtered solution formulated at the optimal concentration to dissociate adherent cell lines

Reagent

This proprietary formulation is a solution of Dulbecco's Phosphate Buffered Saline without Ca^{2+} and Mg^{2+} (DPBS-CMF), containing 1 mM EDTA.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage conditions

This supplement is stored at -20 °C.

Procedure

1. Remove medium from culture vessel by aspiration and rinse the monolayer culture with Ca^{2+} and Mg^{2+}– free salt solution, such as Dulbecco's Phosphate Buffered Saline, Catalog No. D8537, or Hanks' Balanced Salt Solution, Catalog No. H6648. Remove salt solution by aspiration.
2. Dispense enough TrypZean Solution into culture vessel(s) to completely cover the monolayer of cells.
3. Incubate at 37 °C until cells detach from the surface of culture vessel. Check the progress by examination with an inverted microscope at 5, 7.5, and 10 minutes.
   Note: The time required to remove cells from the culture vessel surface is dependent on cell type and cell density.
4. When the trypsinization process is complete, the cells will be in suspension and appear rounded.
5. Dilute the TrypZean Solution with 3-5 times the volume of cell culture growth media and gently pipette cell suspension to break up the cell clumps, or remove the cells from the surface of culture vessels. Transfer cell suspension to a centrifuge tube.
6. Centrifuge at 100 x *g* for 5 to 10 minutes.
   Note: addition of Soybean Trypsin Inhibitor, Catalog No. T6522, can also be used to stop TrypZean Solution activity. But, centrifugation is still recommended, especially for serum-free cell culture systems.
7. Remove supernatant and re-suspend cells in fresh cell growth medium.
8. Determine total cell number and cell viability.
9. Seed culture vessels and subculture according to the normal protocols for the specific cell types.

Cell Lines Evaluated
Vero and CHO were cultured in serum-free or serum-supplemented medium. MDCK and MRC5 were cultured in serum-supplemented medium.

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