Trypsin Inhibitor Solution (Glycine max)

Cell Culture Reagents

Catalog No.: CC064

Description: Soybean trypsin inhibitor (SBTI) is commonly used in cell culture to inhibit the activity of trypsin, an enzyme frequently employed for cell dissociation and passaging. SBTI specifically binds to and neutralizes trypsin, preventing excessive proteolysis that could damage surface proteins and compromise cell viability. In cell culture applications, SBTI is often added to neutralize residual trypsin after the detachment of adherent cells, ensuring that cells can recover and resume normal functions without prolonged exposure to proteolytic activity. This is especially important when handling sensitive cell types, such as primary cells and stem cells, to maintain their integrity and functional properties during subculturing or cell harvesting procedures.

Application: The use of soybean trypsin inhibitor (SBTI) provides an alternative to serum-free inactivation of trypsin when subculturing adherent cells.

Packing Size: 100mL

Formulation: 1mg/mL (w/v) protein content in phosphate buffered saline.

Stablility: It can be stored for one month at 2-8°C and for a long time at -20°C.

Suitability: Cell culture tested

Procedure:

1. Add trypsin-EDTA solution to the adherent cells, ensuring the cells are fully covered. Incubate the plate or flask at 37°C for 1-5 minutes until the cells begin to detach. The incubation time can vary depending on the specific cell line.
2. Check the cells under a microscope to confirm detachment. If most of the cells are detached, gently tap the side of the plate or flask to help dislodge any remaining cells.
3. Once the cells have fully detached, immediately add an equal volume of medium containing SBTI to neutralize the trypsin. The working concentration of SBTI is typically 200-500 μg/mL, though this can vary depending on the specific requirements of the experiment.
4. Gently pipette the cell suspension up and down to ensure even mixing, then transfer the cell suspension to a centrifuge tube.
5. Centrifuge the cells at 1000rpm for 5 minutes to pellet the cells. After centrifugation, carefully aspirate the supernatant, which contains the trypsin and SBTI.
6. Resuspend the cell pellet in fresh culture medium, ensuring the cell concentration is suitable for subsequent experiments or passaging.
7. Seed the resuspended cells into new culture vessels for further propagation or proceed with your experiment as needed.