

Accutase Cell Dissociation Reagent - A Gentle Alternative to Trypsin

Accutase is a cell detachment solution that is revolutionizing the cell culture industry. It is a mix of proteolytic and collagenolytic enzymes that mimics the action of trypsin and collagenase. Unlike trypsin, Accutase does not contain any mammalian or bacterial components and is much gentler on cells, making it an ideal solution for the routine detachment of cells from standard tissue culture plasticware and adhesion coated plasticware. In this blog post, we will explore the benefits and uses of Accutase and how it is changing the game in cell culture.

Advantages of Accutase

Accutase has several advantages over traditional trypsin solutions. Firstly, it can be used whenever gentle and efficient detachment of any adherent cell line is needed, making it a direct replacement for trypsin. Secondly, Accutase works extremely well on embryonic and neuronal stem cells, and it has been shown to maintain the viability of these cells after passaging. Thirdly, Accutase preserves most epitopes for subsequent flow cytometry analysis, making it ideal for cell surface marker analysis.

Additionally, Accutase does not need to be neutralized when passaging adherent cells. The addition of more media after the cells are split dilutes Accutase so it is no longer able to detach cells. This eliminates the need for an inactivation step and saves time for cell culture technicians. Finally, Accutase does not need to be aliquoted, and a bottle is stable in the refrigerator for 2 months.

Applications of Accutase

Accutase is a direct replacement for trypsin solution and can be used for the passaging of cell lines. Additionally, Accutase performs well when detaching cells for the analysis of many cell surface markers using flow cytometry and for cell sorting. Other downstream applications of Accutase treatment include analysis of cell surface markers, virus growth assay, cell proliferation, tumor cell migration assays, routine cell passage, production scale-up (bioreactor), and flow cytometry.

Composition of Accutase

Accutase contains no mammalian or bacterial components and is a natural enzyme mixture with proteolytic and collagenolytic enzyme activity. It is formulated at a much lower concentration than trypsin and collagenase, making it less toxic and gentler, but just as effective.

Efficiency of Accutase

Accutase has been shown to be efficient in detaching primary and stem cells and maintaining high cell viability compared to animal origin enzymes such as trypsin. 100% of cells are recovered after 10 minutes, and there is no harm in leaving cells in Accutase for up to 45 minutes, thanks to autodigestion of Accutase.

In summary

In conclusion, Accutase is a powerful solution that is changing the game in cell culture. With its gentle nature, efficiency, and versatility, Accutase is the ideal alternative to trypsin. If you are looking for a reliable and efficient solution for cell detachment, Accutase is the solution for you.