# Insulin, Human recombinant, Solution (5 mg/ml)

831103

Volume: 5 ml

Storage: +2°C to +8°C

Sterility: Sterile-filtered

Insulin Human Recombinant Solution is a chemically defined supplement commonly used for the cultivation of mammalian cell lines, including Chinese Hamster Ovary (CHO) cells. This cell culture–grade solution contains recombinant human insulin expressed in Saccharomyces cerevisiae, ensuring high purity and consistent performance in research applications.

Application and Benefits

Insulin is routinely added to serum-free and chemically defined media to promote cell growth and productivity. As a key regulatory hormone, insulin supports cellular uptake, utilization, and storage of glucose, amino acids, and fatty acids. It also inhibits the breakdown of glycogen, proteins, and lipids, thereby contributing to improved cell viability and metabolic stability in culture systems. The chemically defined formulation supports reproducibility and minimizes variability in sensitive cell culture workflows.

Biological Properties and Usage

Insulin is a two-chain polypeptide hormone naturally produced by the β-cells of the pancreatic islets. It has a molecular weight of approximately 5,800 Da. The α- and β-chains are linked by two interchain disulfide bonds, and the α-chain contains one intrachain disulfide bond. For cell culture applications, the solution should be handled under aseptic conditions and stored at +2°C to +8°C to maintain stability and performance.

For research use only. Not for use in diagnostic or therapeutic procedures. Not for use in humans or animals.

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