

Protein Purification Services Section Home

History

The practice of isolating proteins dates back to the early 19th century when techniques like salting-out and dialysis were employed. As biology advanced, researchers recognized the need for pure protein samples to understand their structure and function. The development of chromatography and electrophoresis in the mid-20th century revolutionized protein purification.

Arne Tiselius

Pioneered electrophoresis techniques for protein separation.

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Christian B. Anfinsen

Studied protein folding, emphasizing the need for pure protein samples.

Column Chromatography

 $Improved\ separation\ using\ affinity, ion-exchange,\ and\ size-exclusion\ chromatography.$

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Recombinant Protein Expression

Producing proteins of interest in host organisms.

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Proteomics and Mass Spectrometry

Identifying and quantifying proteins in complex samples.

Biopharmaceuticals

Purifying therapeutic proteins for drug development.

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Diagnostic Reagents

Producing pure proteins for diagnostic tests. 4.

Research Reagents

Supplying pure proteins for laboratory studies.

Biotechnology

Purifying proteins used in genetic engineering. 8.

Enzyme Characterization

Studying purified enzymes for industrial use. 10.

Drug Screening

Purifying target proteins for drug discovery.

Agriculture

Producing proteins for crop improvement. 14

Antibody Production

Isolating antibodies for research and diagnostics. 16.

Cell-Free Protein Synthesis

Producing proteins outside living cells. 18.

Stem Cell Research

Purifying proteins for stem cell differentiation. 20.

Future Prospects

The future of protein purification holds exciting possibilities:

Protein Purification Services Section Home

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Advanced Affinity Tags

Developing new tags for improved protein capture.

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Single-Molecule Protein Analysis

Analyzing individual protein molecules.

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High-Throughput Techniques

Purifying multiple proteins simultaneously.

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