Video Article

Electrophoretic Separation of Proteins

Bulbul Chakavarti, Deb Chakavarti
Proteomic Center, Keck Graduate Institute of Applied Life Sciences

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Abstract

Electrophoresis is used to separate complex mixtures of proteins (e.g., from cells, subcellular fractions, column fractions, or immunoprecipitates), to investigate subunit compositions, and to verify homogeneity of protein samples. It can also serve to purify proteins for use in further applications. In polyacrylamide gel electrophoresis, proteins migrate in response to an electrical field through pores in a polyacrylamide gel matrix; pore size decreases with increasing acrylamide concentration. The combination of pore size and protein charge, size, and shape determines the migration rate of the protein. In this unit, the standard Laemmli method is described for discontinuous gel electrophoresis under denaturing conditions, i.e., in the presence of sodium dodecyl sulfate (SDS).

Protocol

The complete text protocol for this experimental approach is available in [Current Protocols in Molecular Biology](#).

References