

PURPOSE

The purpose of the first experiment in this lab was to prepare two membrane fractions, an endoplasmic enriched fraction (microsomal fraction) and a mitochondrial enriched, starting from a rat liver tissue. Homogenization of the tissue, differential centrifugation and filtration made it possible to obtain the two type of membrane fraction. In the second experiment, a microsomal lipid sample was separated by 2D thin layer chromatography (TLC). The first dimension was developed with a basic eluent while an acidic eluent was used for the second dimension. Three standards (each containing two different lipids) as well as the sample were spotted on the TLC plate. Lastly, the lipid to protein ratio in the mitochondrial fraction were analyzed. Brilliant Blue Dye R was used for the lipid assay. Analysis of the lipid and protein assay made it possible to determine the concentration of lipids and proteins as well as the yield of the mitochondria preparation.

RESULTS AND DISCUSSION

Two-dimensional TLC of microsomal lipids

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