

Purification and characterisation of Human Serum Albumin was carried out in this research. Various non-chromatographic purification techniques were optimized either individually or in combination. Optimizations were introduced in previously reported purification strategies based on thermal denaturation (TD), ammonium sulfate (AS) precipitation and Trichloroacetic acid (TCA) precipitation methods. Combined protocols were also applied, namely, AS/TD, TCA/TD, AS/EtOH, and AS/TCA. TD, TCA/TD, AS/TCA were found completely inefficient and retained unwanted plasma proteins in high amounts. AS/EtOH, AS/TD, 10%TCA, and MSM provided efficient purification of HSA. MDM, MRM, 20%TCA and 30%TCA proved to be partially effective. SDS-PAGE analysis was carried out to analyse protein content of each treated sample. The study provides two potentially novel approaches towards non-chromatographic HSA purification technique; however quantitative analysis could not be carried out due to limitations of the study.