

AAARG2003 Study: Quantitation of proteins by Amino Acid Analysis and Colorimetric Assays

The AAA2003 study is a continuation of a previous study focusing on quantitation of proteins by amino acid analysis and dye-binding assays. Each participating laboratory received five separate solutions of pure proteins for the determination of their protein concentration by AAA. The concentration of each sample was also determined by the BCA or Bradford dye-binding assays. An additional standard sample was supplied for the calibration of the dye-binding assay. The amino acid analysis results were used by Research Group members to calculate the protein concentration in each sample and to compare these data with the relative precision and accuracy of the colorimetric assays. The goal of this study is to show whether colorimetric assays are a reliable method of quantitating unknowns when using a standard protein as reference.