

Determination of Protein Concentration Using the BCA Method

Procedure

You should have a 2 mg/ml solution of bovine serum albumin (BSA). Albumin is a ubiquitous plasma protein produced by the liver, and is commonly used as a known standard in most assays to determine protein concentrations in unknown samples. You will make a set of BSA dilutions to create a standard curve, against which you will determine the concentration of the protein in your sample of interest.

1. In a set of 9 microfuge tubes, labeled A

5. The microplate should be sealed with a lid or parafilm covering and be placed in an incubator for 15 minutes at 37°C. The color will change from green to blue to purple, depending on the concentration of protein in each sample (darker color = more protein).
6. Read the absorbance of each well using a microplate reader set at 595 nm. Standard I should be used as the blank on the reader.
7. Determine the concentration of protein in each well by plotting a standard curve on Excel according to the instructions in lab homework.