G-Quant Bradford Reagent

Description

The G-Quant Bradford assay is a colorimetric protein assay. This assay based on the observation that the absorbance maximum for an acidic solution of coomassie G250 shifts from 465nm to 595nm when binding to protein occour. The Bradford assay is relatively free from interference by most commonly used reducing reagents and biochemical agent upto a certain level. However, a few chemicals may significantly alter the absorbance of the reagent blank or modify the response of proteins to the dye . Basically both hydrophobic and ionic interaction stabilize the anionic form of the dye causing a visible colour change. Therefore materials that stabilize this anionic form of this dye do not support Bradford assay. Materials that are most likely to cause problems in biological extracts are detergents and ampholytes.

Procedure

The standard protocol can be performed in three different formats, 5 ml and a 1 ml cuvette assay, and a 200 µl microplate assay. The linear range of these assays for BSA is 125–1,000 µg/ml, whereas with bovine gamma globulin(BGG) the linear range is 125–1,500 µg/ml. After removing the container from 4°C to ambient temperature, samples mixer are prepared according to following chart

Assay	Vol. of Stdn/sample	Vol. of 1X Bradford
5 ML	50 µl	4950µl
1 ML	10 µl	990 µl
0.2 ML	2 µl	198 µl

Samples are incubated for 5 min. and readings are taken in respective spectrophotometer against Blank control.

Features

- Ready-to-use dye-binding reagent formulation
- Immediate color development; read at 595nm
- Compatible with reducing substances and chelating agents
- Refrigerated reagent is stable for 12 months
- Determine protein concentration from 100 to 1,500µg/mL
- Convenient microplate or cuvette format

A

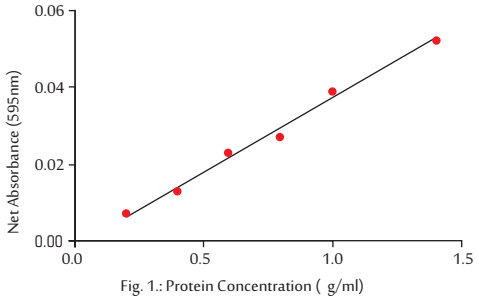
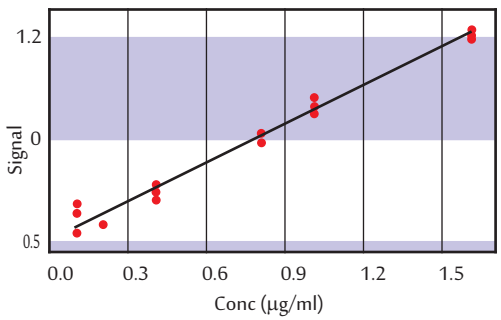


Fig. 1.: Protein Concentration (g/ml)

B



Color response curves obtained with G-Quant Bradford reagent using bovine gamma gloublin (BGG). The standard cuvate assay protocol (A) and microplate assay (B) was performed and the color was measured at 595nm.