T-Pro Bradford Protein Assay Kit

Store at 2~8℃

(JB04-D002) 500 ml

T-Pro Biotechnology

This product is for laboratory research ONLY and not for diagnostic use.

Description	The T-Pro Bradford Protein Assay Kit was based on the Bradford method, is a simple and accurate procedure for determining concentration of solubilized protein. It involves the addition of an acidic dye to protein solution, and subsequent measurement at 595 nm with a spectrophotometer or microplate reader. Comparison to a standard curve provides a relative measurement of protein concentration.
Detection Limitations	micro assay : 1-20 µg macro assay : 20-200 µg
Advantages	• Fast and inexpensive • Highly specific for protein • Very sensitive • Compatible with a wide range of substances • Extinction co-efficient for the dye-protein complex is stable over 10 orders of magnitude (assessed in albumin) • Dye reagent is complex is stable for approximately one hour
Disadvantages	• Non-linear standard curve over wide ranges • Response to different proteins can vary widely, choice of standard is very important
Standard BSA	Solution (1 mg/ml): 0.1 g BSA is dissolved and made up to 100 ml with PBS.
Notes	• Dye binds to quartz cuvettes quite strongly; therefore, glass or plastic cuvettes should be used. • It should be noted that the assay primarily responds to arginine residues (eight times as much as the other listed residues) so if you have an arginine rich protein, you may need to find a standard that is arginine rich as well. • Hydrophobic, membrane or sticky proteins tend to precipitate in the presence of dyes; it is therefore recommended that small amount of sodium hydroxide is used in the assay to help in their solubility. (In this case add equal volumes of the sample and 1 M NaOH, and make up to 1000 µl with the dye reagent)
Storage	T-Pro Bradford Protein Assay Kit is stable for 2~8℃

Preparation of Standards and Working Reagent

a. Test Tube Procedure (Protein 0.2-2.0mg)

1	Warm up the spectrophotometer for 15 min. before use.
2	Dilute samples with buffer to an estimated concentration of 20 to 200 micrograms/ml
3	Prepare standards containing a range of 20 to 200 micrograms protein (albumin or gamma globulin are recommended) to a standard volume (generally 1 ml or less). See how to prepare and use a protein standard curve for suggestions as to setting up the standards.
4	Prepare unknowns to estimated amounts of 20 to 200 micrograms protein per tube, same volume as the unknowns.
5	(Optional) Add 0.25 ml 1 M NaOH to each sample and vortex.
6	Add 5 ml dye reagent and incubate 5 min.
7	Measure absorbance at 595 nm.

b. Microplate Procedure

1	Warm up the spectrophotometer for 15 min before use.
2	Dilute samples with buffer to an estimated concentration of 1 to 20 micrograms/milliliter
3	Prepare standards containing a range of 1 to 20 micrograms protein (albumin or gamma globulin are recommended) to a volume of 200 µl (to a volume of 100 µl if you are adding 1 M NaOH)
4	Prepare unknowns to estimated amounts of 1 to 20 micrograms protein per tube to 200 µl (100 µl if you are using 1 M NaOH)
5	(Optional) Add 100 µl 1 M NaOH to each sample and vortex.
6	Add 800 µl dye reagent and incubate 5 min.
7	Measure the absorbance at 595 nm.