PRO-MEASURE™ Protein Measurement Solution

QUICK GUIDE

100 ml : 21011

1. KIT DESCRIPTION

Accurate protein quantification is essential for downstream applications such as Western blotting. While conventional assays—including A280, Lowry, and BCA—often suffer from nucleic acid interference, amino acid sequence dependency, or lengthy incubation times, the Bradford method offers a faster alternative.PRO-MEASURE™ enhances the conventional Bradford assay by significantly reducing intrinsic reagent background absorbance, delivering consistent baseline stability, high reproducibility, and a streamlined workflow.

2. CHARACTERISTICS

- Fast assay time (within 10 min)
- High sensitivity (10–25 µg/ml)
- Low background absorbance
- Minimal sample & reagent volume required

3. KIT CONTENTS AND STORAGE

Contents	21011
PRO-MEASURE™ Solution (10X)	100 ml
Standard Solution (BSA, 1 mg/ml)	1.0 ml

▪ Store at 4°C (Stable for 2 year)

4. PREPARATION BEFORE USE

- Dilute PRO-MEASURE™ Solution (10X) 1:9 with sterile water to prepare a 1X working solution.

5. CONSIDERATIONS BEFORE USE

1) Blank Calibration : Always use the sample buffer as a blank to prevent baseline errors.

2) Detergent Interference : Detergents (e.g., Triton X-100, NP-40, Deoxycholate) may interfere with measurement. (Recommended: Use iNtRON PRO-PREP™ [Cat. No. 17081] for interference-free extraction.)

3) Sample Dilution : Use the sample extraction buffer (or sterile water if necessary) for sample dilution to minimize matrix effects.

4) Cuvette & Plate Selection
   - Plastic cuvettes or 96-well microplates are recommended.
   - Avoid glass cuvettes, as dye binding can coat the surface and distort readings. (If glass is used, wash with methanol to remove residual dye.)

5) Replicate Measurement : Perform assays in duplicate or triplicate to ensure statistical accuracy and reduce pipetting errors.

6) Standard Curve : Generate a standard curve for each independent assay run using the provided BSA standard.

7) Incubation Time
   - Read absorbance at 595 nm after 2–10 minutes of incubation at room temperature.
   - Complete measurements within 1 hour, as absorbance slowly increases over time.

6. PROTOCOL

6.1. Sample & Standard Preparation

Prepare serial dilutions of the BSA standard (1 mg/ml) to construct a standard curve. Dilute test samples to fit within the linear detection range (10–50 µg/ml or working range).

[BSA Standard Dilution Scheme - example]

Tube	BSA (1 mg/ml)	Diluent (dH2O/Buffer)	Final Conc.
Std 1	50 µl	950 µl	50 µg/ml
Std 2	25 µl	975 µl	25 µg/ml
Std 3	12.5 µl	987.5 µl	12.5 µg/ml
Std 4	6.25 µl	993.75 µl	6.25 µg/ml
Blank	0 µl	1000 µl	0 µg/ml

6.2. Assay Procedure

[Option A : Standard Cuvette Assay]

1) Add 100 µl of prepared standard or sample into a plastic cuvette.
2) Add 1.0 ml of 1X PRO-MEASURE™ Solution and mix thoroughly.
3) Incubate for 2–10 minutes at room temperature.
4) Measure absorbance at 595 nm (A595) using a spectrophotometer.

[Option B : Microplate Assay (96 Well plate/flat bottom)]

1) Pipette 20 µl of prepared standard or sample into each well.
2) Add 200 µl of 1X PRO-MEASURE™ Solution to each well and mix gently.
3) Incubate for 2–10 minutes at room temperature.
4) Measure absorbance at 595 nm (A595) using a microplate reader.

6.3. Quantification

1) Subtract the Blank absorbance from all standard and sample readings.
2) Plot the standard curve (A595 vs. BSA Concentration) and derive the trendline equation.
3) Calculate the protein concentration of unknown samples using the derived equation.