



YamayBio

Ready-to-use Bradford Protein Assay Kit (Detergent Compatible)

QUICK START GUIDE

Research use only.
Not for diagnostic procedures.

Contents and storage

Bradford Protein Assay Kit(Detergent Compatible)

BH5485 800 Assays

Storage: Store at 4°C /-20°C for 12 months. Product shipped in ice packs.

Component	Cat. No.	Volume	Storage
Bradford Reagent	BH5403	250 mL	4°C
BSA standards ① 0 µg/mL	BH5411	1 mL	-20°C
BSA standards ② 100 µg/mL	BH5412	1 mL	
BSA standards ③ 150 µg/mL	BH5414	1 mL	
BSA standards ④ 200 µg/mL	BH5415	1 mL	
BSA standards ⑤ 300 µg/mL	BH5417	1 mL	
BSA standards ⑥ 400 µg/mL	BH5418	1 mL	
BSA standards ⑦ 500 µg/mL	BH5419	1 mL	

Introduction

The Ready-to-use Bradford Protein Assay Kit is a classical, widely used method for protein quantification. Its principle is based on the binding of Coomassie Brilliant Blue dye to basic and aromatic amino acid residues in proteins, forming a stable blue complex. This complex has a maximum absorbance at 595 nm, and the absorbance is proportional to the protein concentration within a certain range.

This kit is a modified version of the traditional Bradford method, optimized for a detection range of **100–500 µg/mL**. It provides rapid results within minutes and is compatible with high concentrations of reducing agents. It is also resistant to interference from commonly used detergents, such as Tween-20, 1% SDS, 1% NP-40, 1% Triton X-100, and 1% Brij-35.

The kit includes pre-diluted BSA protein standards, eliminating the need for serial dilutions and simplifying the workflow.

Quick Protocol

1. **10 μL** sample or standards + **300 μL** of Working Reagent.
2. Incubate for 3-5 minutes at room temperature.
3. Read at 595nm.

Detail Procedures for BCA Protein Assay

1. Pipette **10 μL** of each standard or unknown sample into the appropriate wells of a microplate (e.g., a 96-well plate).
Note: It is strongly recommended to dilute samples with 1 \times PBS or 0.9% saline to ensure they fall within the working range.
2. Add **300 μL** of Bradford reagent to each well and mix thoroughly.
3. Incubate the plate at room temperature for 3–5 minutes.
4. Measure the absorbance at or near 595 nm using a plate reader.
5. Subtract the average absorbance value of the blank replicates from the 595 nm absorbance values of all standards and unknown samples.
6. Generate a standard curve by plotting the average blank-corrected absorbance at **595 nm** against the concentration ($\mu\text{g/mL}$) of each BSA standard. Use this standard curve to determine the protein concentration of each unknown sample.

Note:

1. If using curve-fitting software with a microplate reader, a four-parameter logistic (4PL) or best-fit curve typically provides more accurate results than a purely linear fit. When plotting manually, a point-to-point curve is preferred over a straight line.
2. To calculate the original protein concentration of a diluted sample, multiply the measured concentration by the dilution factor.