Bradford Protein Concentration Assay Kit

(Cat/No.: BC018 Size:500T)

1. Composition

Cat/no.	Reagents	Specifications
BC018A	Coomassie Brilliant Blue G250 solution	100mL
BC018C	Protein standards	1mL*3
	Manual	1

2. Storage Conditions

Coomassie Brilliant Blue G250 solution should be stored at 2-8℃, and protein standards at -20℃. Valid for one year.

3. Product Introduction

The Bradford method for determining protein content is a type of dye-binding method. Coomassie Brilliant Blue G-250 is red in its free state, with maximum light absorption at 488nm; when it binds to protein, it turns blue, and the protein-dye complex has a maximum absorption peak at 595nm. Its light absorption value is directly proportional to the protein content, thus it can be used for quantitative determination of protein. The binding of protein to Coomassie Brilliant Blue G-250 reaches equilibrium in about 2 minutes, and the reaction is very rapid.

Instructions for Use:

1. Dilute the standard to 50-500 μg/mL according to the table below. Protein samples and standards should use the same diluent; PBS is recommended.

Tube	Diluent volume(μL)	Standard volume(μL)	Final concentration(μg/mL)
1	400	100 （Stock solution）	1000
2	50	50 (Take from tube 1)	500
3	60	40 (Take from tube 1)	400
4	70	30 (Take from tube 1)	300
5	80	20 (Take from tube 1)	200
6	90	10 (Take from tube 1)	100
7	95	5 (Take from tube 1)	50
8	100	0	0

2. Add 20 µL of standard solution or sample within the appropriate concentration range to each well of the 96-well plate.

3. Add 200 µL of Coomassie Brilliant Blue G250 solution to each well and mix thoroughly.

4. After incubating at room temperature for 3-5 minutes, measure the absorbance at 595 nm.

5. Plot a standard curve with the gradient protein concentration (µg/mL) on the y-axis and the absorbance on the x-axis. Calculate the sample protein concentration based on the standard curve.

4. Precautions

1. The Coomassie Brilliant Blue G250 solution should be brought to room temperature and mixed thoroughly before use to avoid affecting the sensitivity of the detection. If reagent contamination is found, it should be discarded.

2. To obtain more accurate protein concentration results, it is recommended to perform replicate measurements for each protein gradient and sample, and the standard and sample treatments should be as similar as possible. A standard curve should be prepared each time.

4. An enzyme-linked immunosorbent assay (ELISA) reader is required, with a measurement wavelength between 560-610 nm, 595 nm being optimal.

5. For your safety and health, please wear a lab coat and gloves during operation.