Beijing Solarbio Science & Technology Co., Ltd
Tel: 400-968-6088
Fax: 010-56371281/82
http://www.solarbio.net/

BCA Protein Assay Kit

Cat: PC0020
Size: 500T (Microplate Reader) / 50T (Spectrophotometer)
Storage: BSA protein standard is stored at 4℃ for 3 months， or at -20℃ for 1 year, other reagents keep at room temperature for 1 year

Components:

	500T(50T)	Storage
BCA Reagent	100ml	RT
Cu Reagent	3ml	RT
PBS Dilution	30ml	RT
BSA Standard(5mg/ml BSA)	1ml	-20℃

Product Description:

The BCA Protein Assay Kit is based on the protein reduces Cu^{2+} to Cu^{+} and the principle that BCA forms a purple-blue complex with Cu^{1+} under alkaline condition, followed by detecting absorbance at 562nm and comparing with standard curve to quantify the protein. Detergents in common concentrations such as SDS, Triton X-100, Tween do not affect the test results, but The BCA Protein Assay Kit is affected by chelating agents (EDTA, EGTA), reducing agents (DTT, mercaptoethanol) and lipids. During the experiments, when the high background caused by sample dilution or lysate, it is advisable to take the Bradford Protein Assay Kit into account.

Protocol

A. Microplate Reader

1. BCA working solution

   Dilute 1 volume of Cu Reagent with 50 volumes of BCA Reagent (1:50). If precipitation occurs, it will disappear after mixing. The BCA working reagent could be kept at RT for 24 hours.

2. BSA standard working solution

   Dilute 10μl BSA (5mg/ml) with PBS until to 100μl (0.5mg/ml) . Add 0, 2, 4, 6, 8, 12, 16, 20μl BSA standard working solution (0.5mg/ml) to 96 well plates, add PBS until to 20μl.

3. Dilute the sample properly. It is better to do several gradients, such as 2, 4, 8 times dilution. Add 20μl sample to 96-well plates.

   Note: To avoid errors in operation steps, make the sample point located at 1/2 behind of the standard line as much as possible, as the pipette has a large error when taking a small amount of sample and the point in front of the standard line may not be very accurate.

4. BCA reaction

   Add 200μl BCA working solution to 96 well plates, incubate at 37℃ for 15-30min. Measure the absorbance at 562nm, draw standard curve to calculate the sample protein content. Avoid water evaporation from affecting the test results when using incubator.

B. Spectrophotometer

1. BCA working solution

   Dilute 1 volume of Cu Reagent with 50 volumes of BCA Reagent (1:50). If precipitation occurs, it will disappear after mixing. The BCA working reagent could be kept at RT for 24 hours.

2. BSA standard working solution

Dilute 100μl BSA (5mg/ml) with PBS until to 1ml (0.5mg/ml) .

3. Prepare eight (or more) 5ml centrifuge tube, add reagent as follows:

Centrifuge tubes No.	1	2	3	4	5	6	7 (sample 1)	8 (sample 2)	9 (sample 3)
BSA standard working solution	0	40μl	80μl	120μl	160μl	200μl	200μl	200μl	200μl
PBS	200μl	160μl	120μl	80μl	40μl	0	0	0	0
BCA working solution	2ml	2ml	2ml	2ml	2ml	2ml	2ml	2ml	2ml

Incubate at 37 ℃ for 15-30mins. Measure the absorbance at 562nm, draw standard curve to calculate the sample protein content. Avoid water evaporation from affecting the test results when using incubator.

Note

1. Cu Reagent and PBS Dilution can be stored at 2-8℃ when the reagent is not used for a long time. When the BCA reagent crystallizes and precipitates at low temperature, it can be incubated at 37℃ to dissolve completely without affecting its use.
2. If the sample contains a lot of interfering substances, please use BCA Protein Assay Kit (PC0020).
3. For your safety and health, please wear gloves and gauze mask

Related products

PC0001 Protein standard solution (5mg/ml BSA)
PC0021 BCA Reagent
PC0030 Lowry Protein Assay Kit
PC0010 Bradford Protein Assay Kit
R0010 RIPA buffer(high)
R0050 Nuclear Protein Extraction Kit
P1200 SDS-PAGE Gel Kit
T1070 Tris-Glycine Running Buffer,5×
PR1600 Prestained Protein Marker(14.4kD-97.4kD)
P1015 SDS-PAGE loading buffer,4×(with DTT)
D1060 WB Transfer Buffer,10×
PE0010 ECL Western Blotting Substrate