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## **DATASHEET** BCA Protein Assay Kit

BOATIOLCITAS

## **Product overview**

Name Cat No Biological description BCA Protein Assay Kit HB7109 Simple, rapid, detergent tolerant kit for determining the concentration of proteins in solution. This kit is optimized to measure protein concentrations from 0.02 to 2mg/mL.

Key features of the BCA Protein Assay Kit:

- Detergent compatible compatible with detergent concentrations up to 5%
- Quick 30 minute incubation time means total assay time of around 45 minutes.
- Wide assay range can measure protein concentrations from 0.02 to 2 mg/ml

Simple, rapid, detergent tolerant kit for measuring the concentration of proteins in solution (0.02 to

• Stability - kit is stable at room temperature

Biological action Description

Images



Kit

2mg/mL).

# **Biological Data**

**Application notes** 



Before using the kit for the first time add 5ml of buffer to the protein standard to create a 2mg/ml solution. Use this to create a dilution series of 0, 0.001, 0.005, 0.025, 0.125, 0.25, 0.5, 0.75, 1, 1.5 and 2mg/ml samples (please see the pdf protocol for precisely how to do this). For best accuracy use the same buffer as your proteins of interest. The assay can either be carried out in microplate or tube format.

#### **Microplate Protocol**

should be carried out in triplicate.

- 2. Prepare the working reagent by mixing 50 parts reagent A with 1 part reagent B. For easy calculation add 200µl reagent A and 4µl reagent B per well.
- 3. Add 200µl of working reagent to each well and incubate for 30 minutes at 37°C
- 4. Let the plate cool to room temperature for 1-2 minutes.
- 5. Measure absorbance at 562nm using a microplate reader. This should be ideally carried out within 40 minutes of the start of the assay to maximise accuracy.
  - Subtract the absorbance of the 0mg/ml samples from all measurements then construct a standard curve using the sample data.
- 7. Use the standard curve to calculate the protein concentration of the unknown samples.

#### **Tube Protocol**

- 1. Add 100µl of each standard to labelled test-tubes alongside the unknown samples. Ideally this should be carried out in triplicate.
- 2. Prepare the working reagent by mixing 50 parts reagent A with 1 part reagent B. For easy calculation add 2ml reagent A and 40µl reagent B per tube.
- 3. Add 2ml of working reagent to each tube and mix thoroughly.
- 4. Incubate for 30 minutes at 37°C. Alternatively the incubation can be carried out for 60 minutes at room temperature.
- 5. Cool all tubes to room temperature for 1-2 minutes.
- 6. Measure absorbance at 562nm using a spectrophotometer ensuring that all measurements are made within 10 minutes. Prior to taking the measurements ensure the spectrophotometer is blanked using a cuvette filled with dH<sub>2</sub>O.
- 7. Subtract the absorbance of the 0mg/ml samples from all measurements then construct a standard curve using the sample data.
- 8. Use the standard curve to calculate the protein concentration of the unknown samples.

## **Solubility & Handling**

 Storage instructions
 Room temperature

 Important
 This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

## **Chemical Data**

Kit contents

- Reagent A
- Reagent B
- BCA Protein Standard