BIOMEDICAL RESEARCH SERVICE, UNIVERSITY AT BUFFALO

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Serum Albumin Assay Kit (Cat #: A-129)

COMPONENTS:	Albumin Assay Solution:	40 ml, store at room temp (for 200 wells)
	100 mg/ml BSA:	0.2 ml, store at room temp

PRODUCT DESCRIPTION: Albumin is a major circulating protein produced by the liver, accounting for ~60% of total serum proteins and playing many important roles such as maintaining physiological pH and osmotic pressure. The normal range is 3.5 to 5.5 g/dL (35 to 55 mg/ml). Since serum albumin is a reliable prognostic indicator for morbidity and mortality, an albumin assay is routinely included in the panels of tests known as comprehensive metabolic panel (CMP). The Serum Albumin Assay Kit is designed to measure albumin directly without any pretreatment of samples, which can include serum, plasma, urine, and cell culture medium. The intensity of a blue color formed by albumin interaction with a dye is measured at 610 nm, which is directly proportional to albumin concentration. The assay can typically be completed in 10 min. The assay kit is stable for at least one year if stored and handled properly.

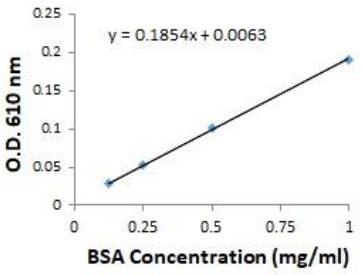
PROTOCOLS

BSA Standards- First dilute the 100 mg/ml BSA standard 100-fold using dH_2O to obtain a 1 mg/ml standard, e.g. 990 µl dH_2O + 10 µl 100 mg/ml BSA. Perform 1:1 serial dilution to obtain 0.5, 0.25, and 0.125 mg/ml using dH_2O.

Serum/plasma samples- Dilute each serum/plasma sample 100-fold with dH_2O prior to assay, e.g., 990 µl dH_2O + 10 µl serum/plasma.

ASSAY:

1. Pipet 20 µl dH_2O to a well of a plain (uncoated) 96-well plate. This is the blank well.
2. Pipet 20 µl diluted BSA standards to a set of wells. These are BSA standard wells.
3. Pipet 20 µl diluted serum/plasma to another set of wells. These are sample wells.
4. Add 200 µl Albumin Assay Solution to each well (avoid air bubbles). Agitate plate gently for 10 sec. Keep plate at room temperature for 5 min.
5. Read absorbance at 610 nm using a plate reader. Subtract blank well reading from all BSA standard and sample well readings.
6. Use the subtracted BSA standard readings to generate a standard plot and a trendline equation.
7. Sample albumin concentration is derived from the trend line equation established at the same time (x= BSA concentrations in mg/ml; y= O.D.).
8. Multiply result by the applicable dilution factor where applicable.



ADDITIONAL INFORMATION:

- The Albumin Assay Solution contains diluted acetic acid. Handle with caution and avoid skin contact. Please visit the product webpage or contact us for SDS information on acetic acid and sodium acetate.