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INSTRUCTIONS

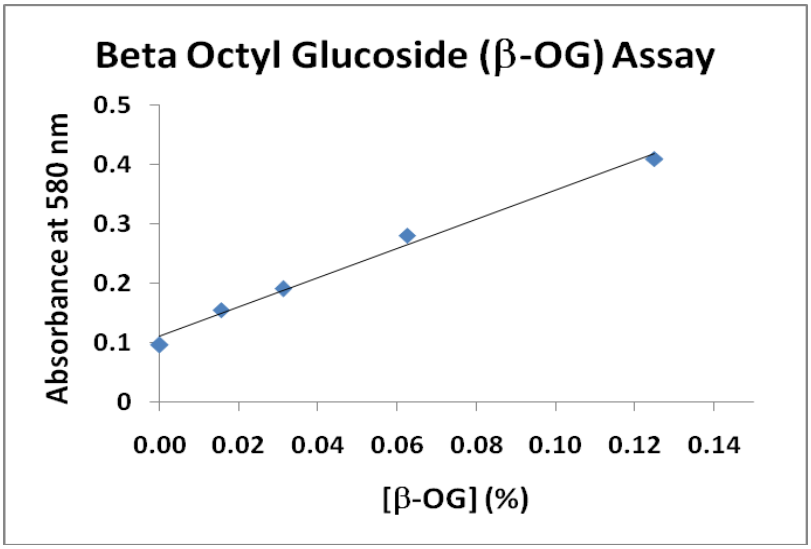
ProFoldin
Beta Octyl Glucoside (β-OG) Assay Kit

CATALOG NUMBER OG100K

INTRODUCTION

The Beta Octyl Glucoside (β-OG) Assay Kit is for measurement of detergent β-OG at concentrations below its CMC value. The assay is based on the principle that β-OG interacts with the dye and enhances the light absorbance at 580 nm. It is compatible with most buffers and salts. It is not compatible with phosphate. Molecules such as ATP or ADP that release phosphate may interfere with the assay.

The assay does not detect beta nonyl glucoside (β-NG) or SDS. Please use Beta Nonyl Glucoside (β-NG) Assay Kit (Catalog # NG100K) for measurement of β-NG concentrations; NanoGram SDS Assay Kit (Catalog # SDS200) for measurement of SDS concentrations; and Detergent Assay Kit (Catalog # DAK1000) for other detergents.



The assay kit includes 10 ml of Reagent 1, 5 ml of dilution buffer and 0.1 ml of 100 x Dye for OG. It is for measurement of 100 samples using 96-well plates. A cuvette may also be used for the measurement of detergent concentrations.

ASSAY PROTOCOL

The following protocol is for assays using a standard black 96-well plate (Costar 3915 or Greiner 655076). Adjust the assay reagent volumes proportionally for measurements using cuvettes.

1. **Sample preparation:** Prepare 50 µl of standard β-OG solutions with a series of concentrations from zero to 0.2% in 10 mM Tris-HCl, pH 7.5, 100 mM NaCl. Prepare 1 x dye by dilution of the 100 x dye with Reagent 1 (100-fold dilution). Each assay needs 100 µl of 1 x dye.

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2. **Detection:** Mix 50 µl of the detergent solution with 100 µl of 1 x dye and incubate the solution at room temperature for 5 min. Read the light absorbance at 580 nm (A_{580}).

3. Data Analysis: Plot the A_{580} values and the β-OG concentration **[β-OG]** to generate the linear standard curve.

$$\mathbf{A_{580} = a\ [\beta\text{-}OG] + b}$$

Where the $\mathbf{A_{580}}$ values are from experimental data, the **a** and **b** values are from the linear fitting between the $\mathbf{A_{580}}$ values and the β-OG concentrations.

UNKNOWN SAMPLES

Follow the same procedure to measure the light absorbance at 580 nm ($\mathbf{A_{580}}$) values from the unknown samples. Calculate the β-OG concentrations in the unknown samples using the $\mathbf{A_{580}}$ values from the unknown samples and the **a** and **b** values from the standard curve.

$$\mathbf{[\beta\text{-}OG] = (A_{580} - b) / a}$$

RELATED PRODUCTS

NG100K	Beta Nonyl Glucoside Assay Kit
SDS200K	NanoGram SDS Assay Kit
DAK1000	Detergent Assay Kit
CMC1000	Detergent Critical Micelle Concentration (CMC) Assay Kit
LIP1000	MicroGram Lipid Assay Kit
NPA1000	NanoMolar Phosphate Assay Kit
MPA3000	MicoMolar Phosphate Assay Kit
PPD1000	MicroMolar Polyphosphate Assay Kit
EPA001	Easy Protein Assay Reagent
HIS200	MicroMolar Histidine Assay Kit
CYS200	MicroMolar Cysteine Assay kit
PEP200	Peptide Assay Kit
PAA100K	MicroMolar Primary Amine Assay Kit
CAK1000	Coenzyme A Assay Kit
EDTA200	MicroMolar EDTA Assay kit
DTT200	MicroMolar DTT Assay kit
MAD100K	MicroMolar ADP Assay kit
MUD100K	MicroMolar UDP assay kit
MCA1000	MicroMolar Copper Assay Kit
NZA1000	NanoMolar Zinc Assay Kit
NMA1000	NanoMolar Nickel / Cobalt Assay Kit
CLA100	MicroMolar Chloride Assay Kit
MSA200	MicroMolar Sulfate Assay Kit
CPT200	MicroMolar Cisplatin Assay Kit

For more information of concentration assays, please visit www.profoldin.com.