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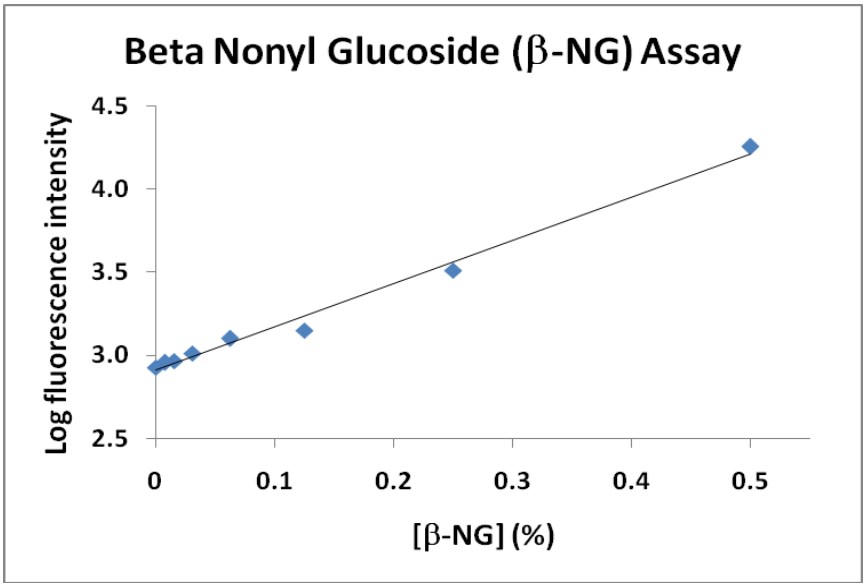
INSTRUCTIONS

ProFoldin
Beta Nonyl Glucoside (β-NG) Assay Kit

CATALOG NUMBER NG100K

INTRODUCTION

The Beta Nonyl Glucoside (β-NG) Assay Kit is for measurement of detergent β-NG at concentrations lower or higher than its CMC value. The assay is based on the principle that β-NG interacts with the dye and enhances the fluorescence at 610 nm (Excitation 550 nm). The log values of the fluorescence intensity show a linear relationship with the concentrations of β-NG. The assay is compatible with most buffers and salts. It is not compatible proteins and other detergents. Please use Beta Octyl Glucoside (β-OG) Assay Kit (Catalog # OG100K) for measurement of β-OG 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 0.2 ml of 10 x Dye for NG and 10 ml of dilution buffer. 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 100 µl of standard β-NG solutions with a series of concentrations from zero to 0.5% in the dilution buffer. Prepare 1 x dye by dilution of the 10 x dye with ethanol (10-fold dilution). Each assay needs 20 µl of 1 x dye.

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2. **Detection:** Mix 100 µl of the β-NG solution with 20 µl of 1 x dye and incubate the solution at room temperature for 10 min. Read the fluorescence intensity at 610 nm (F_{610}) with excitation 550 nm.

3. Data Analysis: Plot the **log F_{610}** values and the β-NG concentration **[β-NG]** to generate the linear standard curve.

$$\textbf{log } F_{610} = \textbf{a [β-NG] + b}$$

Where the **log F_{610}** values are from experimental data, the **a** and **b** values are from the linear fitting between the **log F_{610}** values and the β-NG concentrations.

UNKNOWN SAMPLES

Follow the same procedure to measure the fluorescence intensity at 610 nm (F_{610}) values from the unknown samples. Calculate the β-NG concentrations in the unknown samples using the **log F_{610}** values from the unknown samples and the **a** and **b** values from the standard curve.

$$\textbf{[β-NG] = (log } F_{610} \textbf{ – b) / a}$$

RELATED PRODUCTS

OG100K	Beta Octly 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.