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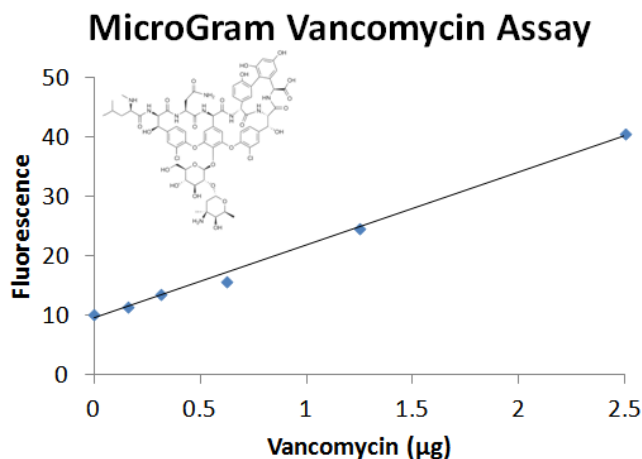
INSTRUCTIONS

ProFoldin MicroGram Vancomycin Assay Kit

CATALOG NUMBER **VAN100**

INTRODUCTION

Vancomycin is a glycopeptide antibiotic that blocks the cell wall synthesis of bacteria. The MicroGram Vancomycin Assay Kit is designed for measurement of low micrograms of vancomycin. The assay is based on increase of fluorescence at 470 nm of the assay reagent in the presence of vancomycin. The assay kit can be used for measurement of vancomycin concentrations in drug discovery, drug development and pharmaceutical samples. The assay is not compatible with biological samples containing amino acids or other molecules or buffers with amines.



The MicroGram Vancomycin Assay Kit (Catalog number VAN100) includes 0.5 ml of 10 x VAN dye, 5.5 ml of Assay buffer, 5 ml of reagent A. It is for measurement of 100 samples using 96-well plates. Cuvettes may also be used for measurements.

ASSAY PROTOCOL

The following assay protocol is based on assays using a 96-well plate for the measurement. The sample volume is 50 µl and the final assay volume is 100 µl. For 384-well plate assays, the sample volume is 30 µl and the final assay volume is 60 µl. For assays using cuvette, the sample volume is 500 µl and the final assay volume is 1000 µl.



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INSTRUCTIONS

STANDARD CURVE

- Sample preparation:** Prepare 50 µl of vancomycin in the wells of a black 96-well plate with a two-fold serial dilution from 100 µM to zero in Assay Buffer. For 10 samples, dilute 0.05 ml of the 10 x VAN dye 10-fold with 0.45 ml of Reagent A to make 0.5 ml of 1 x VAN dye.
- Detection:** Mix 50 µl of 1 x VAN dye with 50 µl of the vancomycin solutions for 5 min and read the fluorescence at 470 nm (excitation at 390 nm).
- Data Analysis:** Plot the fluorescence intensity **F_c** and the vancomycin concentration [**Vancomycin**] to generate the linear standard curve.

$$\mathbf{F_c} = \mathbf{a} [\mathbf{Vancomycin}] + \mathbf{b}$$

Where the **F_c** values are from experimental data, the **a** and **b** values are from the linear fitting between the **F_c** values and the vancomycin concentrations.

UNKNOWN SAMPLES

Follow the same procedure to measure the fluorescence intensity **F_c** values from the unknown samples. Calculate the vancomycin concentrations in the unknown samples using the **F_c** values from the unknown samples and the **a** and **b** values from the standard curve.

$$[\mathbf{Vancomycin}] = (\mathbf{F_c} - \mathbf{b}) / \mathbf{a}$$

RELATED PRODUCTS

MPX200	MicroGram Polymyxin Assay Kit
CIP100	MicroGram Ciprofloxacin Assay Kit
CPT200	MicroMolar Cisplatin Assay Kit
OPT200	MicroMolar Oxaliplatin Assay Kit
CFZ200	MicroGram Carfilzomib Assay Kit
PST100	Penicillin Drug Stability Test Kit
HIS200	MicroMolar Histidine Assay Kit
CYS200	MicroMolar Cysteine Assay kit
CAK1000	Coenzyme A Assay Kit
EDTA200	MicroMolar EDTA Assay kit
DAK1000	Detergent assay kit
LIP1000	MicroGram Lipid Assay Kit
MAD100K	MicroMolar ADP Assay kit

For more concentration assays of various drugs, biochemical molecules and inorganic ions, please visit our website at www.profoldin.com.