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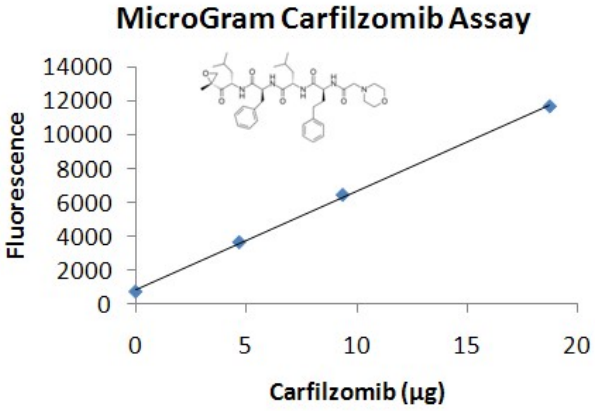
INSTRUCTIONS

ProFoldin
MicroGram Carfilzomib Assay Kit

CATALOG NUMBER **CFZ200**

INTRODUCTION

Carfilzomib is an anti-cancer drug. It is a peptide derivative that selectively inhibits the activity of the 20S proteasome. The MicroGram Carfilzomib Assay Kit is designed for measurement of micrograms of carfilzomib. The assay is based on increase of fluorescence at 535 nm of the assay reagent C33 in the presence of carfilzomib. The assay kit can be used for measurement of carfilzomib concentrations in drug discovery and development.



Due to the insolubility of carfilzomib in water, measurement of carfilzomib concentration is performed in DMSO. The assay is not compatible with thiol compounds or metal chelators such EDTA.

The MicroGram Carfilzomib Assay Kit (Catalog number CFZ200) includes 1 ml of 10 x C33 dye for 200 assays using 96-well plates. Cuvettes may also be used for the assay.

ASSAY PROTOCOL

The sample volume is 0.15 ml and the final volume is 0.2 ml in the 96-wellplate assay format.

STANDARD CURVE

1. Dilute 50 µl of 10 x C33 dye 10 fold with ethanol to make 500 µl of 1 x C33 dye.
2. Prepare 150 µl of carfilzomib solutions in DMSO in the wells of a black 96-well plate with a two-fold serial dilution from 0.5 mg/ml to zero in DMSO.
3. Mix 50 µl of 1 x C33 dye with 150 µl of the carfilzomib solutions for 3 min.
4. Read the fluorescence at 535 nm (excitation at 485 nm).

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5. Plot the fluorescence intensity **Fc** and the carfilzomib concentration **[Carfilzomib]** to generate the linear standard curve.

$$\mathbf{Fc = a\ [Carfilzomib] + b}$$

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

UNKNOWN SAMPLES

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

$$\mathbf{[Carfilzomib] = (Fc - b) / a}$$

RELATED PRODUCTS

MPX200	MicroGram Polymyxin Assay Kit
CPT200	MicroMolar Cisplatin Assay Kit
OPT200	MicroMolar Oxaliplatin Assay Kit
PST100	Penicillin Drug Stability Test Kit
HIS200	MicroMolar Histidine Assay Kit
CYS200	MicroMolar Cysteine Assay kit
PEP200	Peptide Assay Kit
MAD100K	MicroMolar ADP Assay Kit - 100 assays
MUD100K	MicroMolar UDP assay kit - 100 assays
MCA1000	MicroMolar Copper Assay Kit
NZA1000	NanoMolar Zinc Assay Kit
CMC1000	Detergent Critical Micelle Concentration (CMC) Assay Kit
DAK1000	Detergent assay kit
SDS200	NanoGram SDS Assay Kit
LIP1000	MicroGram Lipid Assay Kit
MPA3000	MicroMolar Phosphate Assay Reagent
PPD1000	MicroMolar Polyphosphate Assay Kit
EDTA200	MicroMolar EDTA Assay kit
CLA100	MicroMolar Chloride Assay Kit
DTT200	MicroMolar DTT Assay kit
PAA100K	MicroMolar Primary Amine Assay Kit

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