



ProFoldin

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INSTRUCTIONS

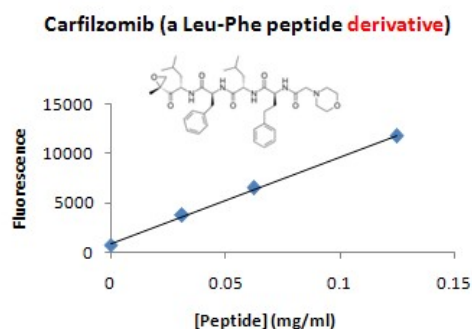
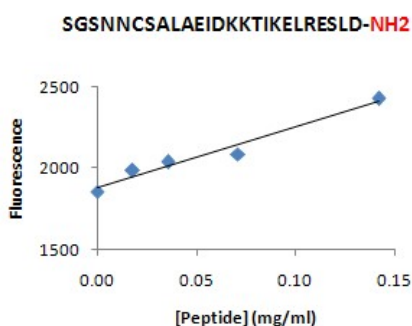
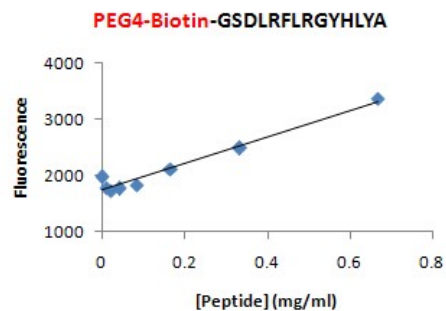
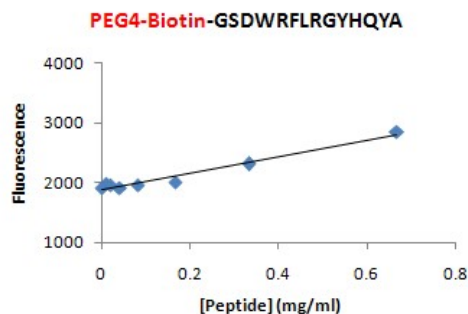
ProFoldin Peptide Derivative Assay Kit

CATALOG NUMBER

PEPD200

INTRODUCTION

Many peptide derivatives or modified peptides have become peptide-based drugs for anti-cancer, anti-infection and other therapeutic applications. Peptide-based drugs often show higher specificity and lower side effects than regular small molecule-based drugs. The Peptide Derivative Assay Kit (Catalog number PEPD200) is designed for concentration measurement of various modified peptides in a DMSO solution. The assay is based on increase of fluorescence at 535 nm generated by binding of Dye C33 with peptides. The assay sensitivity is typically between 0.01 mg/ml and 0.1 mg/ml depending on the structure of the peptide derivatives. The assay is not compatible with amino acids, native peptides, thiol compounds such as DTT or metal chelators such as EDTA.



The Peptide Derivative Assay Kit (Catalog number PEPD200) 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.



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INSTRUCTIONS

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 peptide 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 peptide solutions for 10 min.
4. Read the fluorescence at 535 nm (excitation at 485 nm).
5. Plot the fluorescence intensity **Fc** and the peptide concentration [**Peptide**] to generate the linear standard curve.

$$F_c = a [\text{Peptide}] + b$$

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

UNKNOWN SAMPLES

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

$$[\text{Peptide}] = (F_c - b) / a$$

RELATED PRODUCTS

PEP200	Peptide Assay Kit (for water-soluble peptides)
HPEP200	Hydrophobic Peptide Assay Kit (for water-insoluble peptides)
PAA100K	MicroMolar Primary Amine Assay Kit
MPX200	MicroGram Polymyxin Assay Kit
VAN100	MicroGram Vancomycin Assay Kit
CPT200	MicroMolar Cisplatin Assay Kit
OPT200	MicroMolar Oxaliplatin Assay Kit
PST100	Penicillin Drug Stability Test Kit
HIS200	MicroMolar Histidine Assay Kit
MUD100K	MicroMolar UDP assay kit - 100 assays
NZA1000	NanoMolar Zinc 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
DTT200	MicroMolar DTT Assay kit

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