



## ProFoldin

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# INSTRUCTIONS

## ProFoldin

### MicroMolar Oxaliplatin Assay Kit

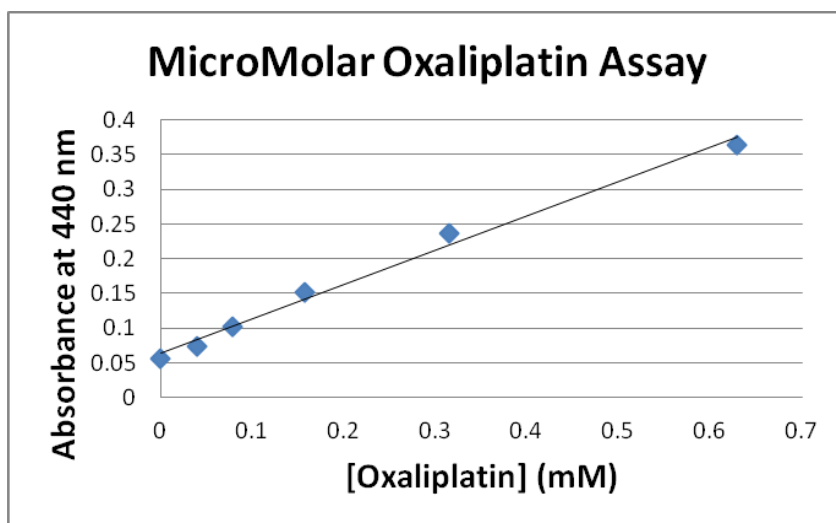
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CATALOG NUMBER

OPT200

#### INTRODUCTION

Oxaliplatin is one of the platinum-based anti cancer drugs. It is used for treatment of colorectal cancer through its cytotoxic effects by inhibition of DNA synthesis in cells. The MicroMolar Oxaliplatin Assay Kit (Catalog number OPT200) is designed for high throughput measurement of micromolar concentrations of Oxaliplatin. The assay is based on the light absorbance at 440 nm. The assay kit can be used for assays of oxaliplatin in drug discovery, drug development, pharmaceutical samples and biological samples.



The MicroMolar Oxaliplatin Assay Kit (Catalog number OPT200) includes 4 ml of Reagent A, 0.4 ml of 10 x Reagent B, and 2 ml of 10 x Reagent C. It is for 200 assays using 96-well plates. Cuvettes may also be used for measurements.

#### ASSAY PROTOCOL

The following assay protocol is based on using a 96-well plate for the measurement. . The sample volume is 100  $\mu$ l and the final assay volume is 240  $\mu$ l. The assay reactions and measurement are on a transparent 96-well plate. It is a high throughput assay format.

For assays using cuvette, the sample volume is 400  $\mu$ l and the final assay volume is 960  $\mu$ l. The assay reactions are carried out in eppendorf tubes or test tubes. The samples are transferred into a cuvette for measurement of the light absorbance.

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## STANDARD CURVE

- Sample preparation:** Prepare 100  $\mu$ l of oxaliplatin solutions in the wells of a transparent 96-well plate with a two-fold serial dilution from 0.25 mg/ml (0.63 mM) to zero in water. For each 10 assays, dilute 20  $\mu$ l of 10 x Reagent B with 200  $\mu$ l of water to make 1 x Reagent B; dilute 110  $\mu$ l of the 10 x Reagent C with 1 ml of water to make 1 x Reagent C.
- Assay:** Into the wells with 100  $\mu$ l of oxaliplatin solutions, add 20  $\mu$ l of Reagent A and 20  $\mu$ l of 1 x Reagent B. Incubate the mixtures at 65°C for 30 min. Add 100  $\mu$ l of 1 x Reagent C into each well. Read the light absorbance at 440 nm ( $A_{440}$ )
- Data Analysis:** Plot the  $A_{440}$  values and the Oxaliplatin concentration [**Oxaliplatin**] to generate the linear standard curve.

$$A_{440} = a [\text{Oxaliplatin}] + b$$

Where the  $A_{440}$  values are from experimental data, the **a** and **b** values are from the linear fitting between the  $A_{440}$  values and the Oxaliplatin concentrations.

## UNKNOWN SAMPLES

Follow the same procedure to measure the light absorbance  $A_{440}$  values from the unknown samples. Calculate the Oxaliplatin concentrations in the unknown samples using the  $A_{440}$  values from the unknown samples and the **a** and **b** values from the standard curve.

$$[\text{Oxaliplatin}] = (A_{440} - b) / a$$

## RELATED PRODUCTS

|        |                                    |
|--------|------------------------------------|
| CPT200 | MicroMolar Cisplatin Assay Kit     |
| MPX200 | MicroGram Polymyxin Assay Kit      |
| CIP100 | MicroGram Ciprofloxacin Assay Kit  |
| CFZ200 | MicroGram Carfilzomib Assay Kit    |
| VAN100 | MicroGram Vancomycin Assay Kit     |
| PST100 | Penicillin Drug Stability Test Kit |

For more concentration assays of various biochemical molecules and inorganic ions, please visit our website at [www.profoldin.com](http://www.profoldin.com).