CREATIVE BIOMART®
Assay Kit

# ?-Glucuronidase Fluorometric Activity Assay Kit

## Product Information

**Cat.No.** Kit-2095

**Product Overview**

β-Glucuronidase Activity Assay Kit provides a quick, reliable fluorometric method for measurements of β-Glucuronidase activities of samples and tissue lysates. The provided substrate, which is specific to β-Glucuronidases, is cleaved into a fluorescent product in the presence of β-Glucuronidase. This kit, when used according to the protocol, is sensitive enough to detect as little as one µU (1 pmole/min) of activity.

**Size**

100 assays

**Description**

β-Glucuronidases are hydrolytic enzymes responsible for the breakdown of carbohydrates. Specifically, β-Glucuronidases cleave the terminal β-D-glucuronic acid residue from the non-reducing terminus of a mucopolysaccharide chain. In humans, these enzymes are found in the lysosome of many tissue types. Loss of β-Glucuronidase activity results in a metabolic disease known as Sly syndrome. One pharmaceutical application for these enzymes is the metabolism of glucuronidated prodrugs into active pharmacological compounds. As expression and activities of β-Glucuronidases vary substantially between tissue types and disease states, these enzymes have been used to achieve targeted activation of oncotherapeutic compounds, some of which may be toxic to healthy cells not associated with malignancy or disease. It is thus important to have knowledge of the β-Glucuronidase activity in the tested sample to determine whether the prodrug or active form will predominate.

**Applications**

Determination of β-Glucuronidase activity in samples • Characterization of purified β-Glucuronidase preparations

**Storage**

Store kit at -20°C, protected from light. Briefly centrifuge small vials prior to opening. Read entire

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protocol before performing the assay.β-Glucuronidase Assay Buffer: Ready to use. Warm to room temperature before use. Store at -20°C.β-Glucuronidase Substrate: Ready to use. Warm to room temperature before use. Store at -20°C.β-Glucuronidase Positive Control: Reconstitute with 55 µl of β-Glucuronidase Assay Buffer to prepare the stock solution. Aliquot & store at -80°C. Avoid repeated freeze/thaw. Use within two months.4-Methylumbelliferone Standard: Warm 4-Methylumbelliferone Standard to room temperature before use. Store at -20°C. Use within six months.

**Kit Components**

β-Glucuronidase Assay Buffer: 25 mlβ -Glucuronidase Substrate: 100 µlβ -Glucuronidase Positive Control: 1 vial4-Methylumbelliferone Standard (5 mM): 35 µl

**Detection method** Fluorescence (Ex/Em 330/450 nm)

**Compatible Sample Types**

• Adherent and suspension cell lysates• Animal tissues such as rat liver • Purified enzyme

**Features & Benefits**

• Simple, rapid & convenient assay to measure β-Glucuronidase • High-throughput adaptable• Includes Positive Control (β-Glucuronidase )

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