



# Beta-Lactamase Activity Colorimetric Assay Kit

## Product Information

### Cat.No.

Kit-0861

### Product Overview

Beta-Lactamase Activity Assay Kit (Colorimetric) is used to detect and quantify the beta-lactamase activity at 490 nm.

### Description

Beta-Lactamases ( $\beta$ Ls) are a large family of hydrolases comprising more than 850 identified members expressed in Gram-positive and Gram-negative bacteria.  $\beta$ Ls can be classified according to their substrate or inhibitor specificity. These enzymes are capable of hydrolyzing four atom rings known as  $\beta$ -lactams. Antibiotics containing  $\beta$ -lactam rings (i.e. penicillin, cephalosporin, monobactam, carbapenem) are highly susceptible to be hydrolyzed via enzymatic activity, which deactivates their antibiotic potency.  $\beta$ Ls have become a significant clinical threat due to the alarming number of cases of bacterial strains showing  $\beta$ -lactam antibiotic resistance. Beta-Lactamase Activity Assay Kit offers a simple and sensitive assay that can detect and quantify the enzymatic activity of these hydrolases. The assay is based on the hydrolysis of Nitrocefin, a chromogenic cephalosporin, that results in the generation of a colored product (OD 490 nm), which is directly proportional to the amount of  $\beta$ L activity. The assay can detect enzymatic activity as low as 0.06 mU in a variety of biological samples.

### Applications

Measurement of  $\beta$ -Lactamase activity in various biological samples  
Analysis of  $\beta$ -Lactamase activity in pathological conditions

### Usage

For research use only (RUO)

### Storage

Store the kit at -20°C, protected from light.



CREATIVE **BIOMART**<sup>®</sup>  
Assay Kit

# Beta-Lactamase Activity Colorimetric Assay Kit

## Kit Components

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&beta;-L Assay Buffer 27 mL Nitrocefin (in DMSO) 220  $\mu$ L Positive Control (Lyophilized) 1 vial  
&beta;-L Hydrolysis Buffer 100  $\mu$ L

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**Detection method** Colorimetric

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## Compatible Sample Types

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Bacterial cultures, Fermentation media, etc., Food e.g. milk, Saliva, Serum, Urine from mammals  
infected with betaL-secreting bacteria

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