CREATIVE BIOMART®
Assay Kit

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 (βLs) are a large family of hydrolases comprising more than 850 identified members expressed in Gram-positive and Gram-negative bacteria. βLs can be classified according to their substrate or inhibitor specificity. These enzymes are capable of hydrolyzing four atom rings known as β-lactams.Antibiotics containing β-lactam rings (i.e. penicillin, cephalosporin, monobactam, carbapenem) are highly susceptible to be hydrolyzed via enzymatic activity, which deactivates their antibiotic potency. βLs have become a significant clinical threat due to the alarming number of cases of bacterial strains showing β-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 βL activity. The assay can detect enzymatic activity as low as 0.06 mU in a variety of biological samples.

Applications

Measurement of β-Lactamase activity in various biological samplesAnalysis of β-Lactamase activity in pathological conditions

Usage

For research use only (RUO)

Storage

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

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Kit Components

βL Assay Buffer 27 mLNitrocefin (in DMSO) 220 µLPositive Control (Lyophilized) 1 vialβL Hydrolysis Buffer 100 µL

Detection method Colorimetric

Compatible Sample Types

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

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