

# Beta Lactamase Inhibitor Screening Assay Kit (Colorimetric) ab197009

[1 References](#) [1 Image](#)

### Overview

<b>Product name</b>	Beta Lactamase Inhibitor Screening Assay Kit (Colorimetric)
<b>Detection method</b>	Colorimetric
<b>Sample type</b>	Inhibitor compounds
<b>Assay type</b>	Enzyme activity
<b>Product overview</b>	<p>Beta Lactamase Inhibitor Screening Assay Kit (Colorimetric) (ab197009) is a reliable and sensitive assay suitable for high throughput screening of Beta Lactamase (<math>\beta</math>-Lactamase) inhibitors. The assay is based on the ability of the enzyme Beta Lactamase to hydrolyze the substrate Nitrocefin, a chromogenic cephalosporin, which results in the generation of a colored product detectable at OD=490 nm. The amount of color produced is directly proportional to the amount of beta-lactamase activity. In the presence of Beta-Lactamase inhibitors, such as clavulanic acid, the rate of substrate hydrolysis will decrease resulting in a decrease in the production of colored analyte.</p>

This kit provides a simple test for screening, studying and/or characterizing Beta-Lactamase inhibitors for efficient treatment of antibiotic resistant bacterial infections.

**Notes** This product is manufactured by BioVision, an Abcam company and was previously called K804 Beta-Lactamase Inhibitor Screening Kit (Colorimetric). K804-100 is the same size as the 100 test size of ab197009.

Beta Lactamase ( $\beta$ -Lactamase,  $\beta$ L), (EC 3.5.2.6), is a bacterial enzyme that hydrolyzes the  $\beta$ -Lactam ring, a four-carbon ring, the building block of  $\beta$ -Lactam antibiotics.  $\beta$ -Lactams inhibit transpeptidases, enzymes that participate in the biosynthesis of bacterial cell walls. Penams, Carbapenems, Cephems, Clavams, Oxacephems and Monobactams have been widely used for the treatment of bacterial infections since the discovery of penicillin, the first  $\beta$ -Lactam antibiotic, and its bactericidal effect more than eighty years ago. However, an alarming number of cases of  $\beta$ -Lactam antibiotic-resistant bacterial strains have been reported. The resistance is due to the production of  $\beta$ -Lactamase, responsible for diminishing the  $\beta$ -Lactam antibiotic potency. Inhibition of  $\beta$ -Lactamase activity has therefore become an urgent target in the treatment of bacterial infections displaying  $\beta$ -Lactam resistance. Several  $\beta$ -Lactam derivatives have been reported as  $\beta$ -Lactamase inhibitors; however, only clavulanic acid, sulbactam and tazobactam have reached clinical importance.

**Platform** Microplate reader

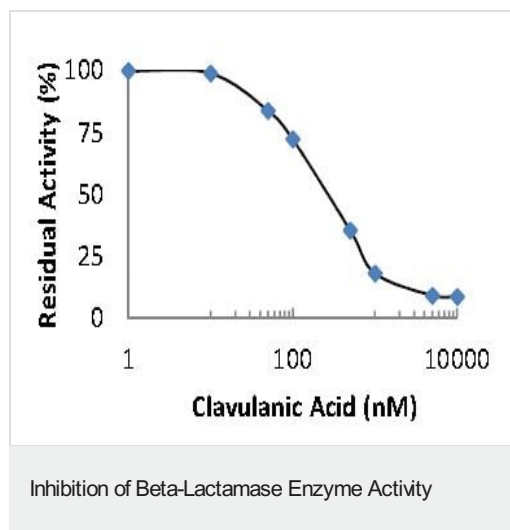
## Properties

### Storage instructions

Store at -20°C. Please refer to protocols.

Components	100 tests
Beta Lactamase	1 vial
Beta Lactamase Assay Buffer	1 x 25ml
Inhibitor Control	1 x 50µl
Nitrocefin	1 x 0.1ml

## Images



Inhibition of Beta Lactamase Enzymatic Activity with Clavulanic Acid following the assay protocol.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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