

## Product Information

### 40561 $\beta$ -Lactamase Testkit

$\beta$ -Lactamase Testkit is a rapid acidimetric test for detection of  $\beta$ -lactamase activity of microorganisms. The test is performed in microtitre wells. The acidimetric test for  $\beta$ -lactamase activity is suitable only for the detection of *Haemophilus influenzae*, *Neisseria gonorrhoeae* and *Staphylococcus* spp. The result of the reaction is read after 10-30 min.

Kit content	Qty.
Microtitre plate strips coated with benzylpenicillin	2
Diluent	75 ml
Pasteur pipette	1
Instruction (for 192 tests)	1

#### Directions:

1. Dissolve the microtitre plate well content by 100  $\mu$ l of diluent. Diluent can be dropped into wells using Pasteur pipette (approx. 3 drops/well) or pipetted from the microtitre plate lid using eight-channel micropipette. (It is not necessary to wait for the complete dissolving of well content).
2. Introduce the tested microorganism into the well using plastic inoculation loop (1-2 loopfulls) and mix the well content thoroughly. Incubate at room temperature (18-22°C) for 10-30 minutes.
3. Read the result after the incubation.

NOTE: The colour of the dissolved well content is stable for at least 24 hours after dissolving. The function of both coated plate and diluent is indicated by their colour appearance. Both components contain colour indicator, the red colour of which indicates the proper function of the product. The product could be deteriorated only by a long-term influence of high temperature over 20°C or by increased humidity effect to the plate.

#### Interpretation of the result:

Negative reaction: solution in well remains red  
Positive reaction: solution turns yellow

#### Principle and Interpretation:

This test is based on hydrolysis of the  $\beta$ -lactam ring in benzylpenicillin, which results in the production of penicilloic acid. This process causes acidification of the bacterial suspension, and changes the colour of the acid-based indicator. In presence of microorganisms having  $\beta$ -lactamase the solution turns from red to yellow.

#### Limitations:

This test is not suitable for the detection of the  $\beta$ -lactamase activity of other microorganisms (*Branhamella catarrhalis*, *Enterococcus faecalis*, *Neisseria meningitis*, *Enterococcus* spp. and others).

#### Storage:

Store  $\beta$ -Lactamase Testkit in a refrigerator between +2 and +8 °C. Unused plate keep out of moisture.  
Shelf life is stated on the package.