

Data Sheet



EUCODIS Beta Lactamase Kit

Cat. No.	Description	
EB Kit	Beta Lactamase Kit, containing six beta-Lactamases	
Cat. No.	Molecular Class	Activity/vial
EB021	B	> 1000 IU βI
EB022	B	> 1000 IU βI
EB023	A	> 1000 IU βI
EB024	D	> 1000 IU βI
EB025	A	> 1000 IU βI
EB026	A	> 1000 IU βI

For *in vitro* use only.

Specifications

Name	EUCODIS Beta Lactamase Kit
E.C.	3.5.2.6.
Origin	bacterial and fungal
Source	recombinant, from <i>E. coli</i> or <i>P. pastoris</i>
Formulation	Freeze-dried or spray-dried powder
Storage	-20°C

Substrate Specificity

The beta lactamases contained in the kit have individual substrate specificity profiles. EB021, EB022 and EB024-26 exhibit activity against a broad range of β-lactam antibiotics including penicillins, cephalosporins as well as carbapenems while EB023 almost exclusively possesses beta I activity. For information regarding specific antibiotics, please contact our application specialists.

Applications

Beta Lactamases can be applied for sterility testing of β-lactam antibiotics by membrane filtration methods according to US and European Pharmacopeia. They can be easily incorporated into existing standard operating procedures by addition of the reconstituted sterile-filtered enzyme solution to all buffers and media.

To validate complete inactivation of β-lactams a challenge test (using less than 100 colony-forming units of *Staphylococcus aureus* ATCC 6538 or *Bacillus subtilis* ATCC 6633) with an appropriate quantity of enzyme has to be performed under the custom specific settings. Please refer to our application specialists for further advice.

Further applications include environmental monitoring of manufacturing areas and sterility testing of blood cultures.

Recommendations for use

We recommend dissolving the lyophilized content of one vial in 10 mL of purified water. After reconstitution, filter-sterilize through a 0.2 μm low-protein binding membrane.

For preparation of agar plates, **Beta Lactamases** should be added to the medium at a temperature of ≤ 50°C.

Store at 2-8°C after reconstitution.

Please note that EB024 requires > 10 mM bicarbonate for full activity.

Unit definition

One International unit of β-I activity (Penicillinase) will hydrolyze 1.0 μmole benzylpenicillin per minute at pH 7.0 and 25°C. One IU β-I corresponds to 600 Levy units or 100.000 Kersey Units, respectively.

One International unit of β-II activity (Cephalosporinase) will hydrolyze 1.0 μmole cephalosporin C per minute at pH 7.0 and 25°C.