

β -Lactamase MIX

(β -Lactamase I + β -Lactamase II)



THE PRODUCT

β -Lactamase MIX (β -Lactamase I + β -Lactamase II) is a freeze-dried product containing buffer salts and zinc. It has a broad range of activity against both penicillins (β activity) and cephalosporins (β II activity).

FORMULATION AND PACK SIZE

β -Lactamase MIX (β -Lactamase I + β -Lactamase II) is available in the following pack size and formulations:

-cod. BM Bulk: lyophilized, non-sterile, pack size on demand with the following specification:

- > 2 β II IU (International Units)/mg of powder
- > 20 β I IU (International Units)/mg of powder

-cod. BM5: lyophilized, non-sterile, pack size of 10 vials/pack with the following specification:

- > 50 β II IU (International Units)/vial
- > 500 β I IU (International Units)/vial

-cod. BM5IR: lyophilized, sterile (irradiated), pack size of 10 vials/pack with the following specification:

- > 50 β II IU (International Units)/vial
- > 500 β I IU (International Units)/vial

-cod. BM1: lyophilized, non-sterile, pack size of 10 vials/pack with the following specification:

- > 1.000 β II IU (International Units)/vial
- > 10.000 β I IU (International Units)/vial

1 IU of Penicillinase (β -Lactamase I) is defined as the amount of enzyme needed to hydrolyze 1 μ mole of Penicillin G per minute at 25°C and pH 7.0

1 IU of Penicillinase corresponds to 600 Levy Units, 75 Pollock Units or 91200 Kersey Kinetic Units.

1 IU of Cephalosporinase (β -Lactamase II) is defined as the amount of enzyme needed to hydrolyze 1 μ mole of Cephalosporin C per minute at 25°C and pH 7.0

APPLICATION

β -Lactamase MIX is a product specifically designed for the inactivation of a broad range of beta-lactam antibiotics, thus find its application in beta-lactams sterility testing (either environmental and antibiotics sterility testing). **β -Lactamase MIX** can be used for the inactivation of beta-lactams from blood or tissue sample prior to routine microbiological examination. Due to its very broad specificity range **β -Lactamase MIX** can also be used in the assessment of the susceptibility of new beta-lactams antibiotics to inactivation by ESB lactamases.

USAGE

β -Lactamase MIX (β -Lactamase I + β -Lactamase II) freeze dried powder should be simply reconstituted with purified water and, if necessary, filter sterilized through a 0.22-micron filter prior to use. After reconstitution the product should be stored at 2-8°C and used within 4 weeks.

For non-sterile formulation after reconstitution the solution must be filter sterilized promptly.

EFFECTIVENESS

β -Lactamase MIX has been demonstrated to inactivate the following:

Penicillins: Amdinocillin, Amoxicillin, Ampicillin, Azlocillin, Benzylpenicillin, Carbenicillin, Cloxacillin, Flucloxacillin, Methicillin, Mezlocillin, Nafcillin, Oxacillin, Piperacillin, Ticarcillin.

Cephalosporins: Cefaclor, Cefadroxyl, Cefalexin, Cefaloridine, Cefalothin, Cefamandole, Cefazolin, Cefdinir, Cefixime, Cefonicid, Cefoperazone, Cefotaxime, Cefpodoxime, Cefprozil, Cefsulodin, Ceftazidime, Ceftiofur, Ceftizoxime, Ceftriaxone, Cefuroxime.

β -Lactamase MIX has also been demonstrated to inactivate **Carbapenems**.

STABILITY OF REAGENTS

Freeze dried bulk powder

Freeze dried bulk powder has a stability of 36 months from manufacturing date. The product should be stored at -25/+8°C. For long term storage, -25/-15°C should be preferable.

ADDITIONAL INFORMATION

β -Lactamase MIX DOES NOT CONTAIN ANIMAL DERIVATIVES and it's certified as a TSE/BSE free product.



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