



### The product

**LACTAMATOR™** is an innovative enzyme based product developed by CPC Biotech and specifically designed for the inactivation of a wide range of beta-lactam antibiotics. **LACTAMATOR™** efficiently inactivates penicillins, cephalosporins of first, second, third, fourth, fifth generation and penems.

### Formulation and pack size

**Freeze dried LACTAMATOR™** is available in the following pack size:

- cod. LCT-5: pack size of 10 vials each of which contains > 50 IU of cephalosporinase activity/vial and > 500 IU of penicillinase activity/vial
- cod. LCT-20: pack size of 1 vial containing > 2 KIU of cephalosporinase activity/vial > 20 KIU of penicillinase activity/vial
- cod. LCT-BULK on demand

**Sterile liquid ready to use LACTAMATOR™** is available in the following pack size:

- cod. LCT-LQS-10: pack of 5 x 10 ml vials each of which contains > 100 IU of cephalosporinase activity/vial and > 1000 IU of penicillinase activity/vial

1 IU is defined as the amount of enzyme needed to hydrolyze 1 µmole of Penicillin G (Penicillinase) or 1 µmole of Cephalosporin C (Cephalosporinase) per minute at 25°C and pH 7.0  
1 IU of Penicillinase corresponds to 600 Levy Units

### Application

**LACTAMATOR™** 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). **LACTAMATOR™** 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 **LACTAMATOR™** can also be used in the assessment of the susceptibility of new beta-lactams antibiotics to inactivation by ESB lactamases.

### Usage

#### **Freeze dried formulation**

**cod. LCT-5:** reconstitute each vial with 5 ml of purified water obtaining a solution having > 10 IU/ml of cephalosporinase activity and > 100 IU of penicillinase activity.  
**cod. LCT-20:** reconstitute the vial with 20 ml of purified water obtaining a solution having > 100 IU/ml of cephalosporinase activity and > 1 KIU of penicillinase activity  
After reconstitution sterile filter the solution using a suitable device. Add an appropriate amount of enzyme solution to the test sample. The amount of **LACTAMATOR™** to be added to the test sample should be determined and set-up case by case depending on the application, concentration of antibiotic that should be inactivated, and depending on the specific beta-lactam that should be inactivated.

#### **Sterile liquid ready to use formulation** (cod. LCT-LQS-10)

Sterile liquid **LACTAMATOR™** is an optimized ready to use solution that can be directly added to the test samples. The amount of liquid sterile **LACTAMATOR™** to be added to the test sample should be determined and set-up case by case depending on the application, concentration of antibiotic that should be inactivated, and depending on the specific beta-lactam that should be inactivated.

### Stability of Reagents

#### **Freeze dried formulation**

Freeze dried **LACTAMATOR™** has a stability of three years from manufacturing date. After reconstitution and sterile filtration, the solution can be stored at + 2°C/+8°C for at least three months without losing activity.

#### **Sterile liquid ready to use formulation** (cod. LCT-LQS-10)

Sterile liquid **LACTAMATOR™** has a stability of 14 months from manufacturing date. The product should be stored at + 2°C/+8°C.

LCT-5, LCT-20 and LCT-Bulk are manufactured by CPC Biotech s.r.l., V. Colleoni, 23 Palazzo Pegaso 2, 20040 Agrate Brianza (MB) ITALY  
LCT-LQS-10 is manufactured on behalf of CPC Biotech s.r.l. by Lisapharma S.p.A., Via Licinio 11, 22036 Erba (Como) - ITALY

