

# Data Sheet



## LacBuster™-S

Cat. No.	Formulation	Sales Unit	Activity/vial
EB006.1	freeze dried powder	10 vials	> 500 IU βI > 50 IU βII
EB006.2	freeze dried powder	1 vial	> 20000 IU βI > 2000 IU βII
EB006.7	freeze dried powder	1 vial	> 10000 IU βI > 1000 IU βII

### Specifications

**LacBuster™-S** is a β-lactamase formulation with a broad substrate range against β-lactam antibiotics including carbapenems, cephalosporins up to 5<sup>th</sup> generation and penicillins.

**LacBuster™-S** is available as a freeze-dried product containing buffer salts (potassium phosphate, sodium chloride and sorbitol).

### Unit definition

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

### Applications

**LacBuster™-S** can be applied for sterility testing of β-lactam antibiotics by membrane filtration according to US and European Pharmacopeia methods. It 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 the β-lactam 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 customer-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

For reconstitution, we recommend dissolving the content of one vial EB006.1 in 10 mL, or one vial of EB006.2 / EB006.7 in 40 mL of deionized, purified water. After reconstitution, filter-sterilize through a 0.2 μm low-protein binding membrane. For preparation of agar plates, **LacBuster™-S** should be added to the medium at a temperature of ≤ 55°C.

### Sterility

**LacBuster™-S** vials are sterilised by gamma-irradiation. There is no detectable growth in Tryptone Soy broth at 30-35°C for 14 days.

### Storage/Stability

**LacBuster™-S** is stable in unopened vials for 2 years from the date of manufacturing at 2-8°C. After reconstitution **LacBuster™-S** is stable for 2 months at 2-8°C.

### Substrate Range

**LacBuster™-S** has been demonstrated to inactivate following β-lactam antibiotics efficiently:

- **Cephalosporins:** Cefaclor, Cefadroxil, Cefazolin, Cefepime, Cefixime, Cefotaxime, Cefoxitin, Cefpodoxime, Ceftazidime, Ceftributen, Ceftriaxon, Cefuroxime, Cephalixin
- **Carbapenems:** Doripenem, Ertapenem, Imipenem, Meropenem
- **Penicillins:** Amoxicillin, Ampicillin, Benzylpenicillin, Oxacillin, Piperacillin, Ticarcillin

For *in vitro* use only.