LACTB

Description	Beta Lactamase Recombinant
Catalogue Number	ENZ-351
Synonyms	b-Lactamase, EC 3.5.2.6, TEM precursor.
Introduction	Beta-lactamase is a type of enzyme (EC 3.5.2.6) produced by some bacteria that is responsible for their resistance to beta-lactam antibiotics like penicillins, cephalosporins, cephamycins and carbapenems. These antibiotics have a common element in their molecular structure: a four-atom ring known as a beta-lactam. The lactamase enzyme breaks that ring open, deactivating the molecule''s antibacterial properties.
Description	Beta-Lactamase TEM precursor Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 263 amino acids and having a molecular mass of 29 kDa. Beta Lactamase is purified by proprietary chromatographic techniques.
Source	Escherichia Coli.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a concentrated (1 mg/ml) solution in water containing 20mM Phosphate buffer pH-7.
Solubility	It is recommended to reconstitute the lyophilized Beta Lactamase in sterile 18MΩ-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.
Stability	Lyophilized Beta Lactamase although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Beta Lactamase Recombinant should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Purity	Greater than 90.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Amino acid sequence	MHPETLVK VKDAEDQLGA RVGYIELDLN SGKILESFRP EERFPMMSTF KVLLCGAVLS RVDAGQEQLG RRIHYSQNDL VEYSPVTEKH LTDGMTVREL CSAAITMSDN TAANLLLTTI GGPKELTAFL HNMGDHVTRL DRWEPELNEA IPNDERDTTM PAAMATTLRK LLTGELLTLA SRQQLIDWME ADKVAGPLLR SALPAGWFIA DKSGAGERGS RGIIAALGPD GKPSRIVVIY TTGSQATMDE RNRQIAEIGA SLIKHW.
Unit Definition	One unit will hydrolyze 1.0 µmole of indicated substrate per min at pH 7.0 at 25°C. The International Unit (using benzylpenicillin as substrate) is approximately equal to 600 Levy or 75 Pollock units.
Specific Activity	1,500IU/mg.
Usage	Prospec's products are furnished for LABORATORY RESEARCH USE ONLY. They may not be used as drugs,agricultural or pesticidal products, food additives or household chemicals.
Related Products	» LACTB E.coli, His