

## Recombinant Beta Lactamase

<b>Catalog No.</b>	CSI12795 CSI12796 CSI12797	<b>Quantity:</b>	1.0 mg 10 mg 50 mg
<b>Alternate Names:</b>	β-Lactamase, EC 3.5.2.6, TEM-1		
<b>Description:</b>	<p>Beta-lactamase is an enzyme (EC 3.5.2.6) produced by bacteria, such as salmonella, 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.</p> <p>Recombinant Beta-Lactamase is expressed in E.Coli is a single, non-glycosylated polypeptide chain containing 264 amino acids and having a molecular mass of 28.9 kDa. Beta Lactamase is purified by proprietary chromatographic techniques.</p>		
<b>Source:</b>	<i>E. coli</i>		
<b>Molecular Weight:</b>	28.9 kDa		
<b>Formulation:</b>	Lyophilized from a concentrated solution in 100 mM Tris, pH 7.0		
<b>Purity:</b>	> 95% as determined by SDS-PAGE and RP-HPLC analysis.		
<b>Endotoxin Level:</b>	<0.1 ng/μg of protein.		
<b>Biological Activity:</b>	One unit will hydrolyze 1.0 μmole of benzyl penicillin at pH 7.0 at 25°C, in presence of EDTA.		
<b>Amino Acid Sequence:</b>	MHPETLVK VKDAEDQLGA RVGYIELDLN SGKILESFRP EERFPMMSTF KVLLCGAVLS RVDAGQEQLG RRIHYSQNDL VEYSPVTEKH LTDGMTVREL CSAAITMSDN TAANLLTTI GGPKELTAFL HNMGDHVTRL DRWEPELNEA IPNDERDTTM PAAMATTLRK LLTGELLTLA SRQQLIDWME ADKVAGPLLR SALPAGWFIA DKSGAGERGS RGIIAALGPD GKPSRIVVIY TTGSQATMDE RNRQIAEIGA SLIKHW		
<b>Reconstitution:</b>	<b>Centrifuge vial briefly before opening to consolidate the product.</b> Reconstitute in sterile distilled water at a concentration of 100 μg/ml, which can then be further diluted to other aqueous solutions. The Beta Lactamase should be used in pH 7.0- 8.0 and in temperature not higher than 45°C.		
<b>Storage &amp; Stability:</b>	Upon receipt, store lyophilized protein at -20°C to -80°C for up to 1 year. Reconstituted protein is stable for 1 week at 2-8°C. For long term storage, aliquot and store at -20°C to -80°C with a carrier protein (0.1% HSA or BSA) as a stabilizer. <b>Avoid repeated freeze-thaw cycles.</b>		

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