
Product Data Sheet

Product Name: LACTB E.Coli, His Active

Cat. No.: GP21859

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Beta-lactamase; Cephalosporinase; ampC; ampA; b4150; JW4111.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MAPQQINDIV HRTITPLIEQ QKIPGMAVAV IYQGKPYFT WGYADIAKKQ PVTQQTFLFEL GSVSKTFTGV LGGDAIARGE IKLSDPTTKY WPELTAKQWN GITLLHLATY TAGGLPLQVP DEVKSSDLL RFYQNWQPAW APGTQRLYAN SSIGLFGALA VKPSGLSFEQ AMQTRVFQPL KLNHTWINVP PAEEKNYAWG YREGKAVHVS PGALDAEAYG VKSTIEDMAR WVQSNLKLPLD INEKTLLQGGI QLAQSRYWQT GDMYQGLGWE MLDWVPVNPDS IINGSDNKIA LAARPVKAIT PPTPAVRASW VHKTGATGGF GSYVAFIPEK ELGIVMLANK NYPNPARVDA AWQILNALQ.		
Formulation	The LACTB solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0) and 10% glycerol.		

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.

Biological Activity

Specific activity is >700 units/mg, in which One unit will hydrolyze 1.0umole of Nitrocefin per minute at pH 7.0 at 37°C.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

LACTB produced in E.Coli is a single, non-glycosylated polypeptide chain containing 379 amino acids (20-377 a.a) and having a molecular mass of 41.8kDa. LACTB is fused to a 20 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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