

32-6825: LACTB E.Coli, His Active

Application : Functional Assay

Alternative Name : Beta-lactamase, Cephalosporinase, ampC, ampA, b4150, JW4111.

Description

Source: Escherichia Coli.

Sterile Filtered colorless solution.

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.

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.

Product Info

Amount : 2 µg / 10 µg

Purification : Greater than 95.0% as determined by SDS-PAGE.

Content : The LACTB solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0) and 10% glycerol.

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

Amino Acid : MGSSHHHHHH SGLVPRGSH MAPQQINDIV HRTITPLIEQ QKIPGMAVAV IYQGKPYFT
WGYADIAKKQ PVTQQTLFEL GSVSKTFTGV LGGDAIARGE IKLSDPTTKY WPELTAKQWN
GITLLHLATY TAGGLPLQVP DEVKSSDLL RFYQNWQPAW APGTQRLYAN SSIGLFGALA
VKPSGLSFEQ AMQTRVFQPL KLNHTWINVP PAEEKNYAWG YREGKAVHVS PGALDAEAYG
VKSTIEDMAR WVQSNLKPLD INEKTQQGI QLAQSRWQT GDMYQGLGWE MLDWPVNPDS
IINGSDNKIA LAARPVKAIT PPTPAVRASW VHKTGATGGF GSYVAFIPEK ELGIVMLANK
NYPNPARVDA AWQILNALQ.

Application Note

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.