

## Beta-lactaminase Active Protein | ampC active protein

Beta-lactaminase, E Coli, 20-377, His-tag, E Coli (Bioactivity Validated)

|                              |                       |                                 |
|------------------------------|-----------------------|---------------------------------|
| CATALOG #<br><b>AAA48963</b> | HOST<br><b>E Coli</b> | APPLICATIONS<br><b>SDS-Page</b> |
|------------------------------|-----------------------|---------------------------------|

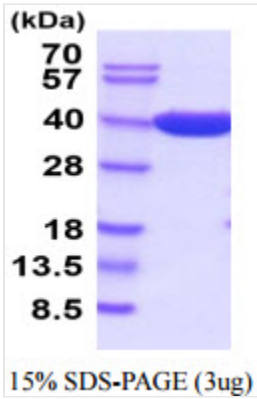
### PRODUCT SYNONYMS

Beta-lactaminase; E Coli; 20-377; His-tag; E Coli (Bioactivity Validated); ampC; ampA; Cephalosporinase; ampC active protein

### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | E Coli                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Purity/Purification                             | > 95% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Form/Format                                     | Liquid. 20mM Tris-HCl Buffer (pH 8.0) containing 10% glycerol                                                                                                                                                                                                                                                                                                                                                                                   |
| Concentration                                   | 1 mg/ml (determined by Bradford assay) (varies by lot)                                                                                                                                                                                                                                                                                                                                                                                          |
| Sequence                                        | MGSSHHHHH SSGLVPRGSH MAPQQINDIV HRTITPLIEQ QKIPGMAVAV IYQGKPPYYFT WGYADIAKKQ<br>PVTQQTLFEL GSVSKTFTGV LGGDAIARGE IKLSDPPTKY WPELTAKQWN GITLLHLATY TAGGLPLQVP<br>DEVKSSDLL RFYQNWQPAW APGTQRLYAN SSIGLFGALA VKPSGLSFEQ AMQTRVFQPL KLNHTWINVP<br>PAEEKNYAWG YREGKAVHVS PGALDAEAYG VKSTIEDMAR WWQSNLKPLD INEKTLLQQGI QLAQSRYWQT<br>GDMYQGLGWE MLDWPVNPDS IINGSDNKIA LAARPVKAIT PPTPAVRASW VHKTGATGGF GSYVAFIEPK<br>ELGIVMLANK NYPNPARVDA AWQILNALQ |
| Sequence Length                                 | 377                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Applicable Applications for ampC active protein | Enzyme Activity, SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Tag Information                                 | His-tag                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Domain                                          | 20-377aa                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 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 37C.                                                                                                                                                                                                                                                                                                                        |
| Preparation and Storage                         | Can be stored at 2°C to 8°C for one week.<br>For long term storage, aliquot and store at -20°C to -80°C.<br>Avoid repeated freezing and thawing cycles.                                                                                                                                                                                                                                                                                         |

IMAGES



SDS-PAGE  
3 ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for ampC active protein | AmpC, also known as Beta-lactamase, is the most widespread resistance mechanism to beta-lactam antibiotics, such as the penicillins and the cephalosporins. 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. Recombinant E Coli beta-lactamase protein, fused to His-tag at N-terminus, was expressed in E Coli and purified by using conventional chromatography. |
| Product Categories/Family for ampC active protein   | Metabolism; Signal Transduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| References                                          | Zhao Z., et al. (2015) Cancer Lett. 358 (1):17-26.; Martin I., et al. (2014) Cell. 157 (2):472-85.                                                                                                                                                                                                                                                                                                                                                                                                                                 |

NCBI AND UNIPROT INFORMATION

|                               |                                                                |
|-------------------------------|----------------------------------------------------------------|
| NCBI GI #                     | 16131975                                                       |
| NCBI GeneID                   | 948669                                                         |
| NCBI Accession #              | NP_418574                                                      |
| NCBI GenBank Nucleotide #     | NC_000913.3                                                    |
| UniProt Accession #           | P00811; Q2M6F2                                                 |
| Molecular Weight              | 41.8 kDa (379aa), confirmed by MALDI-TOF                       |
| NCBI Official Full Name       | penicillin-binding protein; beta-lactamase, intrinsically weak |
| NCBI Official Symbol          | ampC                                                           |
| NCBI Official Synonym Symbols | ampA; ECK4146; JW4111                                          |
| NCBI Protein Information      | penicillin-binding protein; beta-lactamase, intrinsically weak |
| UniProt Protein Name          | Beta-lactamase                                                 |
| UniProt Gene Name             | ampC                                                           |
| UniProt Synonym Gene Names    | ampA                                                           |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.