

## Beta-lactamase CTX-M-1/Bla Protein, E.coli (His)

<b>Cat. No.:</b>	HY-P71459
<b>Synonyms:</b>	bla; men1Beta-lactamase CTX-M-1; EC 3.5.2.6; Beta-lactamase MEN-1; Cefotaximase 1
<b>Species:</b>	E.coli
<b>Source:</b>	E. coli
<b>Accession:</b>	P28585 (29Q-291L)
<b>Gene ID:</b>	39692553
<b>Molecular Weight:</b>	Approximately 32.2 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> Q T A D V Q Q K L A   E L E R Q S G G R L   G V A L I N T A D N   S Q I L Y R A D E R F A M C S T S K V M   A V A A V L K K S E   S E P N L L N Q R V   E I K K S D L V N Y N P I A E K H V D G   T M S L A E L S A A   A L Q Y S D N V A M   N K L I S H V G G P A S V T A F A R Q L   G D E T F R L D R T   E P T L N T A I P G   D P R D T T S P R A M A Q T L R N L T L   G K A L G D S Q R A   Q L V T W M K G N T   T G A A S I Q A G L P A S W V V G D K T   G S G D Y G T T N D   I A V I W P K D R A   P L I L V T Y F T Q P Q P K A E S R R D   V L A S A A K I V T   N G L           </pre>
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
<b>Endotoxin Level</b>	<1 EU/μg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	Beta-lactamase CTX-M-1/Bla Protein is a broad-spectrum beta-lactamase that plays a crucial role in antibiotic resistance by conferring resistance to penicillins, as well as first, second, and third-generation cephalosporins. Its enzymatic activity contributes to the hydrolysis of these beta-lactam antibiotics, allowing bacteria to evade the antimicrobial effects of these commonly used drugs. This resistance mechanism poses a significant challenge in the clinical treatment of bacterial
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infections, emphasizing the importance of understanding and addressing the molecular basis of antibiotic resistance.

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

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