

Cytosine deaminase/CodA Protein, E.coli (His-SUMO)

Cat. No.:	HY-P71466
Synonyms:	codA; b0337; JW0328Cytosine deaminase; CD; CDA; CDase; EC 3.5.4.1; Cytosine aminohydrolase; Isoguanine deaminase; EC 3.5.4.-
Species:	E.coli
Source:	E. coli
Accession:	P25524 (2S-427R)
Gene ID:	944966
Molecular Weight:	Approximately 63.5 kDa

PROPERTIES

AA Sequence	<pre> S N N A L Q T I I N A R L P G E E G L W Q I H L Q D G K I S A I D A Q S G V M P I T E N S L D A E Q G L V I P P F V E P H I H L D T T Q T A G Q P N W N Q S G T L F E G I E R W A E R K A L L T H D D V K Q R A W Q T L K W Q I A N G I Q H V R T H V D V S D A T L T A L K A M L E V K Q E V A P W I D L Q I V A F P Q E G I L S Y P N G E A L L E E A L R L G A D V V G A I P H F E F T R E Y G V E S L H K T F A L A Q K Y D R L I D V H C D E I D D E Q S R F V E T V A A L A H H E G M G A R V T A S H T T A M H S Y N G A Y T S R L F R L L K M S G I N F V A N P L V N I H L Q G R F D T Y P K R R G I T R V K E M L E S G I N V C F G H D D V F D P W Y P L G T A N M L Q V L H M G L H V C Q L M G Y G Q I N D G L N L I T H H S A R T L N L Q D Y G I A A G N S A N L I I L P A E N G F D A L R R Q V P V R Y S V R G G K V I A S T Q P A Q T T V Y L E Q P E A I D Y K R </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O.
Storage & Stability	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.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Cytosine deaminase, encoded by the *codA* gene, is an enzyme that catalyzes the hydrolytic deamination of cytosine to uracil. This enzymatic activity is a key step in the pyrimidine salvage pathway, enabling the cell to utilize cytosine for the synthesis of pyrimidine nucleotides. In addition to its primary function, Cytosine deaminase also exhibits deaminase activity towards isoguanine, an oxidation product of adenine in DNA, and isocytosine. Furthermore, the enzyme displays a secondary activity, converting 5-fluorocytosine (5FC) to 5-fluorouracil (5FU). This ability to transform a non-cytotoxic precursor, 5FC, into a cytotoxic chemotherapeutic agent, 5FU, highlights the potential therapeutic applications of Cytosine deaminase in cancer treatment.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA