

# Recombinant Escherichia coli (strain K12) Cytosine deaminase

Catalog No: #AP72933

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Package Size: #AP72933-1 20ug #AP72933-2 100ug #AP72933-3 1mg

## Description

Product Name	Recombinant Escherichia coli (strain K12) Cytosine deaminase
Brief Description	Recombinant Protein
Host Species	Yeast
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:2-427aaSequence Info:Full Length
Other Names	Cytosine aminohydrolaselisoguanine deaminase1
Accession No.	P25524
Uniprot	P25524
GeneID	944996;
Calculated MW	49.5 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	<p>SNNALQTIINARLPGEEGLWQIHLQDGKISIDAQSGVMPITENSLDAEQGLVIPPFVEPHIHLDTTQTAGQPNW</p> <p>NQSGTLFEGIERWAERKALLTHDDVKQRAWQTLKWQIANGIQHVRTHVDVSDATLTALKAMLEVKQEVAPWI</p> <p>DLQIVAFPQEGILSYPNGEALLEEALRLGADVVGAIPIHFETREYGVESLHKTFALAQKYDRLIDVHCDEIDDEQ</p> <p>SRFVETVAALAHHEGMGARVTASHTTAMHSYNGAYTSRLFLLKMSGINLVANPLVNIHLQGRFDYTPKRRGI</p> <p>TRVKEMLESGINVCFGHDDVDFDPWYPLGTANMLQVLHMGLHVCQLMGYQGINDGLNLITHHSARTLNLQDYG</p> <p>IAAGNSANLILPAENGFDALRRQVPVRYSVRGGKVIASQPAQTTVYLEQPEAIDYKR</p>
Formulation	Tris-based buffer50% glycerol
Storage	<p>The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.</p> <p>Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.</p>

## Background

Catalyzes the hydrolytic deamination of cytosine to uracil. Is involved in the pyrimidine salvage pathway, which allows the cell to utilize cytosine for pyrimidine nucleotide synthesis. Is also able to catalyze deamination of isoguanine, a mutagenic oxidation product of adenine in DNA, and of isocytosine. To a lesser extent, also catalyzes the conversion of 5-fluorocytosine (5FC) to 5-fluorouracil (5FU); this activity allows the formation of a cytotoxic chotherapeutic agent from a non-cytotoxic precursor.

## References

Characterization of the Escherichia coli codBA operon encoding cytosine permease and cytosine deaminase.Danielsen S., Kilstруп M., Barilla K., Jochimsen B., Neuhard J.Mol. Microbiol. 6:1335-1344(1992)Research Topic:Others

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Note: This product is for in vitro research use only