

Recombinant Escherichia coli Cytosine deaminase(codA)

Catalog No: #AP71081

Package Size: #AP71081-1 20ug #AP71081-2 100ug #AP71081-3 1mg

Description

Product Name	Recombinant Escherichia coli Cytosine deaminase(codA)
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:2-427aaSequence Info:Full Length
Other Names	Cytosine aminohydrolaseIsoguanine deaminase1
Accession No.	P25524
Calculated MW	63.5 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	SNNALQTIINARLPGEGLWQIHLQDQKISIDAQSGVMPITENSLDAEQGLVIPPFVEPHIHLDTTQTAGQPNW NQSGTLFEGIERWAERKALLTHDDVKQRAWQTLKWQIANGIQHVRTHVDVSDATLTALKAMLEVKQEVAPWI DLQIVAFPQEGILSYNGEALLEEALRLGADVVGAIHPHFETREYGVESLHKTFALAQKYDRLIDVHCDEIDDEQ SRFVETVAALAHHEGMGARVTASHTTAMHSYNGAYTSRFLRLKMSGINFVANPLVNIHLQGRFDITYPKRRGI TRVKEMLESGINVCFGHDDVDFPWYPLGTANMLQVLHMGHVCQLMGYGQINDGLNLITHHSARTLNLQDYG IAAGNSANLIILPAENGFDALRRQVPVRYSVRGGKVIASQPAQTTVYLEQPEAIDYKR
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. 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.

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

Three-dimensional structure and catalytic mechanism of cytosine deaminase.Hall R.S., Fedorov A.A., Xu C., Fedorov E.V., Almo S.C., Rauschel F.M.Biochemistry 50:5077-5085(2011)Research Topic:Others

Note: This product is for in vitro research use only and is not intended for use in humans or animals.