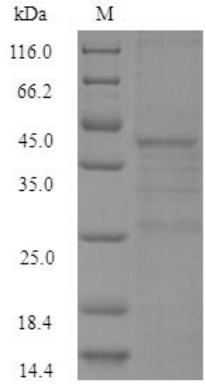
Recombinant Escherichia coli LexA repressor (lexA)

Product Code	CSB-EP363985ENV
Relevance	Represses a number of genes involved in the response to DNA damage (SOS response), including recA and lexA. Binds to the 16 bp palindromic sequence 5'-CTGTATATATATACAG-3'. In the presence of single-stranded DNA, RecA interacts with LexA causing an autocatalytic cleavage which disrupts the DNA-binding part of LexA, leading to derepression of the SOS regulon and eventually DNA repair. Implicated in hydroxy radical-mediated cell death induced by hydroxyurea treatment .The SOS response controls an apoptotic-like death (ALD) induced (in the absence of the mazE-mazF toxin-antitoxin module) in response to DNA damaging agents that is mediated by RecA and LexA
Abbreviation	Recombinant E.coli lexA protein
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.
Uniprot No.	P0A7C2
Product Type	Recombinant Protein
Immunogen Species	Escherichia coli (strain K12)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MKALTARQQEVFDLIRDHISQTGMPPTRAEIAQRLGFRSPNAAEEHLKALARK GVIEIVSGASRGIRLLQEEEEGLPLVGRVAAGEPLLAQQHIEGHYQVDPSLFKP NADFLLRVSGMSMKDIGIMDGDLLAVHKTQDVRNGQVVVARIDDEVTVKRLKK QGNKVELLPENSEFKPIVVDLRQQSFTIEGLAVGVIRNGDWL
Research Area	Microbiology
Source	E.coli
Target Names	lexA
Expression Region	1-202aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	38.4kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Constructing a plasmid encoding the Escherichia coli (strain K12) lexA protein (1-202aa) is the initial step in the general approach to express the recombinant Escherichia coli (strain K12) lexA protein. The plasmid is then transformed into e.coli cells. Positive e.coli cells are selected and cultured, protein expression is induced, and cells are lysed. The protein is fused with a N-terminal 6xHis-SUMO tag. The resulting recombinant Escherichia coli (strain K12) lexA protein is then purified through affinity purification, and SDS-PAGE analysis is carried out to verify the presence and assess the purity of the protein. Its purity exceeds 90%.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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