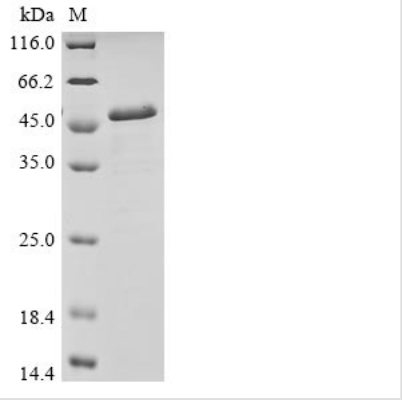
Recombinant Escherichia coli RNA polymerase sigma factor rpoS (rpoS)

Product Code	CSB-EP319548ENVa0
Abbreviation	Recombinant E.coli rpoS 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.	P13445
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Escherichia coli (strain K12)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MSQNTLKVHDLNEDAEFDENGVEVFDEKALVEQEPSDNDLAEEELLSQGATQ RVLDATQLYLGEIGYSPLLTAEEEVYFARRALRGDVASRRRMIESNLRLVVKIA RRYGNRGLALLDLIEEGNLGLIRAVEKFDPERGFRFSTYATWWIRQTIERAIMN QTRTIRLPIHIVKELNVYLRTARELSHKLDHEPSAEEIAEQLDKPVDDVSRMLRL NERITSVDTPLGGDSEKALLDILADEKENGPEDTTQDDDMKQSIVKWLFELNAK QREVLARRFGLLGYEAATLEDVGREIGLTRERVRQIQVEGLRRLREILQTQGLN IEALFRE
Research Area	Transcription
Source	E.coli
Target Names	rpoS
Expression Region	1-330aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	42.1 kDa
Protein Length	Full Length
Image	



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

Description

Amino acids 1-330 constitute the expression domain of recombinant Escherichia coli (strain K12) rpoS. The calculated molecular weight for this rpoS protein is 42.1 kDa. Expression of this rpoS protein is conducted in e.coli. The rpoS gene fragment has been modified by fusing the N-terminal 6xHis tag, providing convenience in detecting and purifying the recombinant rpoS protein during the following stages.

The Escherichia coli RNA polymerase sigma factor RpoS is a key regulator of gene expression involved in the bacterial stress response. RpoS plays a crucial role in the transition from exponential growth to stationary phase, enabling E. coli to adapt to various environmental stresses. It controls the expression of genes related to survival mechanisms, such as oxidative stress resistance, nutrient limitation, and the general stress response. RpoS is essential for bacterial virulence and persistence in different environments. Its activity is tightly regulated at the transcriptional and post-translational levels, allowing E. coli to modulate its gene expression profile in response to changing conditions. Understanding the regulatory mechanisms of RpoS is important for unraveling bacterial adaptation strategies and developing strategies to control bacterial infections.

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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