

Active Recombinant E. coli lepA Protein, His-tagged

Cat. No. lepA-11081E Lot. No. (See product label)

SPECIFICATION

Product Overview	E. coli Elongation Factor 4 Protein, His Tag is expressed from E. coli cells. It contains AA Lys 2 - Lys 599 (Accession # C4ZYJ2). This protein carries a polyhistidine tag at the N-terminus. Predicted N-terminus: Met
Species	E. coli
Source	E. coli
ProteinLength	2-599 aa
Description	Elongation Factor 4 (EF4), also known as LepA, is a highly conserved GTPase translation factor present across bacteria, mitochondria, and chloroplasts. It regulates protein synthesis by interacting with the ribosome during translation elongation. Unlike canonical elongation factors (e.g., EF-G) that promote forward translocation, EF4 catalyzes back-translocation of tRNAs on the ribosome, effectively acting as a molecular 'reverse gear' to reposition tRNAs and mRNA. This unique function allows EF4 to maintain translational fidelity under stress conditions (e.g., low pH or high ionic strength) by rescuing stalled ribosomes and correcting errors in protein synthesis.
Form	Supplied as 0.2 µm filtered solution in PBS, 0.5 M NaCl, 1 M Arginine, pH7.4 with glycerol as protectant.
Bio-activity	The specific activity of Elongation Factor 4 was determined to be > 1700 pmol/min/mg in a GTPase-Glo assay using GTP solution substrate.

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Molecular Mass	The protein has a calculated MW of 68.5 kDa. The protein migrates as 65-80 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE).
Purity	>90% as determined by SDS-PAGE.
Storage	This product is stable after storage at: The product MUST be stored at -70 centigrade or lower upon receipt; -70 centigrade for 3 months under sterile conditions. Please avoid repeated freeze-thaw cycles.
Concentration	0.2 mg/mL
Shipping	This product is supplied and shipped with dry ice, please inquire the shipping cost.

GENE INFORMATION

Gene Name	lepA translation elongation factor 4 [Shigella sonnei]
Official Symbol	lepA
Synonyms	lepA; translation elongation factor 4; translation elongation factor 4; EC 3.6.5.n1
Gene ID	93774522
Protein Refseq	WP_000790168
UniProt ID	C4ZYJ2

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