

# Recombinant Escherichia coli EFP Protein (2-188 aa), His-tagged

**Cat. No.** EFP-2123E    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Escherichia coli (strain K12) EFP Protein (2-188 aa) is produced by Yeast expression system. This protein is fused with a 6xHis tag at the N-terminal. Research Area: Microbiology. Protein Description: Full Length of Mature Protein.                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>           | Yeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ProteinLength</b>    | 2-188 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | Involved in peptide bond synthesis. Alleviates ribosome stalling that occurs when 3 or more consecutive Pro residues or the sequence PPG is present in a protein, possibly by augmenting the peptidyl transferase activity of the ribosome. Beta-lysylation at Lys-34 is required for alleviation. The Pro codons and their context do not affect activity; only consecutive Pro residues (not another amino acid) are affected by EF-P. Has stimulatory effects on peptide bond formation between ribosome-bound initiator tRNA(fMet) and puromycin, and N-acetyl-Phe tRNA(Phe)-primed poly(U)-directed poly(Phe) synthesis. |
| <b>Form</b>             | Tris-based buffer,50% glycerol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Molecular Mass</b>   | 22.5 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>AA Sequence</b>      | ATYYSNDFRAGLKIMLDGEPYAVEASEFVKPGKGQAFARVKLRLLTGTRVEKTFKS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|                      |                                                                                                                                                                                                                                                                                                                     |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                      | TDSAEGADVDMNLTYLYNDGEFWHFMNNETFEQLSADAKAIGDNAKWLLDQAECI<br>VTLWNGQPISVTPPNFVELEIVDTDPGLKGDTAGTGGKPATLSTGAVVKVPLFVQIG<br>EVIKVDTRSGEYVSRVK                                                                                                                                                                           |
| <b>Purity</b>        | > 90% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                    |
| <b>Notes</b>         | Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.                                                                                                                                                                                                        |
| <b>Storage</b>       | 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 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade. |
| <b>Concentration</b> | A hardcopy of COA with reconstitution instruction is sent along with the products.                                                                                                                                                                                                                                  |

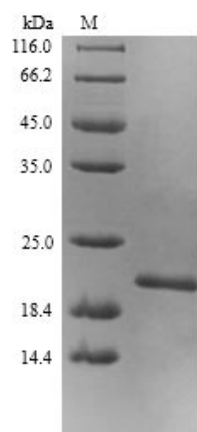
## GENE INFORMATION

|                        |                                                                                        |
|------------------------|----------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | efp protein chain elongation factor EF-P [ Escherichia coli str. K-12 substr. MG1655 ] |
| <b>Official Symbol</b> | EFP                                                                                    |
| <b>Synonyms</b>        | efp; ECK4141;                                                                          |
| <b>Gene ID</b>         | 948661                                                                                 |
| <b>Protein Refseq</b>  | NP_418571                                                                              |
| <b>UniProt ID</b>      | P0A6N4                                                                                 |

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

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