

## **Product information**

EIF2S1, 1-315 aa

Human, His-tagged, Recombinant, E.coli

Cat. No. IBATGP0581

Full name: Eukaryotic translation initiation factor 2 subunit 1 NCBI Accession No.: NP\_004085

Synonyms: EIF-2, EIF-2A, EIF-2alpha, EIF2, EIF2A

**Description**: EIF2S1, also known as eIF2 $\alpha$ , is the alpha subunit of the translation initiation factor eIF2 complex which catalyzes the first regulated step of protein synthesis initiation, promoting the binding of the initiator tRNA to 40S ribosomal subunits. The phosphorylation state of eIF2S1 controls the rate of tRNA translation. When eIF2 $\alpha$  is not phosphorylated, translation occurs at a normal rate. However, upon phosphorylation by one of several kinases, eIF2S1 is stabilized, thus preventing the GDP/GTP exchange reaction and slowing translation. Recombinant human EIF2S1 protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques.

Form: Liquid. 20mM Tris-HCl buffer (pH8.0) containing 10% glycerol
0.1M NaCl

Molecular Weight: 38.2 kDa (335aa) confirmed by MALDI-TOF

Purity: > 85% by SDS - PAGE

Concentration: 0.5 mg/ml (determined by Bradford assay)

## Sequences of amino acids:

MGSSHHHHHH SSGLVPRGSH MPGLSCRFYQ HKFPEVEDVV MVNVRSIAEM GAYVSLLEYN NIEGMILLSE LSRRRIRSIN KLIRIGRNEC VVVIRVDKEK GYIDLSKRRV SPEEAIKCED KFTKSKTVYS ILRHVAEVLE YTKDEQLESL FQRTAWVFDD KYKRPGYGAY DAFKHAVSDP SILDSLDLNE DEREVLINNI NRRLTPQAVK IRADIEVACY GYEGIDAVKE ALRAGLNCST ENMPIKINLI APPRYVMTTT TLERTEGLSV LSQAMAVIKE KIEEKRGVFN VQMEPKVVTD TDETELARQM ERLERENAEV DGDDDAEEME AKAED

## **General references:**

WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN, DIAGNOSTICS OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.

15% SDS-PAGE (3ug)



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Scheuner D, et al. (2005) Nat Med. 11(7):757-64 Boyce M. et al. (2005) Science. 307(5711):935-9

**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

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