

Product datasheet

Recombinant Human EIF2S1 protein ab123468

Overview

Product name	Recombinant Human EIF2S1 protein
Protein length	Full length protein

Description

Nature	Recombinant
Source	Escherichia coli

Amino Acid Sequence

Accession	P05198
Species	Human
Sequence	<p>MGSSHHHHHH SSGLVPRGSH MPGLSCRFYQ HKFPEVEDVV MVNVRSAEM GAYVSLLEYN NIEGMILLSE LSRRRIRSIN KLIRIGRNEC VVVIRVDKEK GYDLSKRRV SPEEAIKCED KFTKSKTVYS ILRHVAEVLE YTKDEQLESL FQRTAWVFDD KYKRPGYGAY DAFKHAVSDP SILDSL DLNE DEREVLINNI NRRLTPQAVK IRADIEVACY GYEGIDAVKE ALRAGLNCST ENMPIKINLI APPRYVMTT TLERTEGLSV LSQAMAVIKE KIEEKRGVFN VQMEPKVVD TDETELARQM ERLERENAEV DGDDDAEEME AKAED</p>

Molecular weight	38 kDa including tags
Amino acids	1 to 315
Tags	His tag N-Terminus

Specifications

Our [Abpromise guarantee](#) covers the use of **ab123468** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Purity > 85 % SDS-PAGE.
 ab123468 was purified by proprietary chromatographic techniques and filter sterilized.
 ab123468 is greater than 85% as determined by SDS-PAGE.

Form	Liquid
Additional notes	Although stable at 4C for 1 week, ab123468 should be stored desiccated below -18C. Please prevent freeze thaw cycles.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Please see notes section. pH: 8.00 Constituents: 0.32% Tris HCl, 10% Glycerol, 0.58% Sodium chloride
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General Info

Function	Functions in the early steps of protein synthesis by forming a ternary complex with GTP and initiator tRNA. This complex binds to a 40S ribosomal subunit, followed by mRNA binding to form a 43S preinitiation complex. Junction of the 60S ribosomal subunit to form the 80S initiation complex is preceded by hydrolysis of the GTP bound to eIF-2 and release of an eIF-2-GDP binary complex. In order for eIF-2 to recycle and catalyze another round of initiation, the GDP bound to eIF-2 must exchange with GTP by way of a reaction catalyzed by eIF-2B.
Sequence similarities	Belongs to the eIF-2-alpha family. Contains 1 S1 motif domain.
Post-translational modifications	Substrate for at least 4 kinases: EIF2AK1/HRI, EIF2AK2/PKR, EIF2AK3/PERK and EIF2AK4/GCN2. Phosphorylation stabilizes the eIF-2/GDP/eIF-2B complex and prevents GDP/GTP exchange reaction, thus impairing the recycling of eIF-2 between successive rounds of initiation and leading to global inhibition of translation (PubMed:15207627, PubMed:18032499). Phosphorylated; phosphorylation on Ser-52 by the EIF2AK4/GCN2 protein kinase occurs in response to amino acid starvation and UV irradiation.
Cellular localization	Cytoplasmic granule. The cytoplasmic granules are stress granules which are a dense aggregation in the cytosol composed of proteins and RNAs that appear when the cell is under stress. Colocalizes with NANOS3 in the stress granules (By similarity).

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