

## Product datasheet

# Recombinant Human EIF2S1 protein ab123468

### Overview

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<b>Product name</b>	Recombinant Human EIF2S1 protein
<b>Protein length</b>	Full length protein

### Description

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<b>Nature</b>	Recombinant
<b>Source</b>	Escherichia coli

### Amino Acid Sequence

<b>Accession</b>	<a href="#">P05198</a>
<b>Species</b>	Human
<b>Sequence</b>	<p>MGSSHHHHHH SSGLVPRGSH MPGLSCRFYQ            HKFPEVEDVV MVNVRSAEM GAYVSLLEYN            NIEGMILLSE LSRRRIRSIN KLIRIGRNEC VVVIRVDKEK            GYIDLSKRRV 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>
<b>Molecular weight</b>	38 kDa including tags
<b>Amino acids</b>	1 to 315
<b>Tags</b>	His tag N-Terminus

### Specifications

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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.

<b>Applications</b>	SDS-PAGE
<b>Purity</b>	<p>&gt; 85 % SDS-PAGE.</p> <p>ab123468 was purified by proprietary chromatographic techniques and filter sterilized.            ab123468 is greater than 85% as determined by SDS-PAGE.</p>

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

## Preparation and Storage

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<b>Stability and Storage</b>	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

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<b>Function</b>	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.
<b>Sequence similarities</b>	Belongs to the eIF-2-alpha family. Contains 1 S1 motif domain.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	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).

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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