

## Product datasheet

# Recombinant Human EIF2S1 protein ab123468

### Overview

---

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

### Description

---

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

#### Amino Acid Sequence

**Accession** [P05198](#)

**Species** Human

**Sequence**

```

MGSSHHHHHH SSGLVPRGSH MPGLSCRFYQ
HKFPEVEDVV MVNVRSAEM GAYVSLLEYN
NIEGMILLSE LSRRRIRSIN KLIRIGRNEC
VVVIRVDKEK GYIDLSKRRV SPEEAIKCED
KFTKSKTVYS ILRHVAEVLE YTKDEQLES
L
FQRTAWVFDD KYKRPGYGAY DAFKHAVSDP
SILDSL DLNE DEREVLINNI NRRLTPQAVK
IRADIEVACY GYEGIDAVKE ALRAGLNCST
ENMPIKINLI APPRYVMTT TLERTEGLSV
LSQAMAVIKE KIEEKRGVFN VQMEPKVVTD
TDETELARQM ERLERENAEV DGDDDAEEME AKAED

```

<b>Molecular weight</b>	38 kDa including tags
<b>Amino acids</b>	1 to 315
<b>Tags</b>	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.

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

**Additional notes** Although stable at 4°C for 1 week, ab123468 should be stored desiccated below -18°C. 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

## 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).

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

## Our Abpromise to you: Quality guaranteed and expert technical support

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <http://www.abcam.com/abpromise> or contact our technical team.

## Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors