


Product datasheet

Anti-EIF2S1 antibody ab26197

★★★★★ [6 Abreviews](#) [37 References](#) [3 Images](#)

Overview

Product name	Anti-EIF2S1 antibody
Description	Rabbit polyclonal to EIF2S1
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB
Species reactivity	Reacts with: Mouse, Human, Drosophila melanogaster Predicted to work with: Rat 
Immunogen	Synthetic peptide corresponding to Human EIF2S1 aa 50-150 conjugated to keyhole limpet haemocyanin. Synthetic peptide conjugated to KLH derived from within residues 50 - 150 of Human eIF2 alpha. Read Abcam's proprietary immunogen policy
Positive control	Recombinant Human EIF2S1 protein (ab123468) can be used as a positive control in WB. HeLa Whole Cell Lysate Jurkat Whole Cell Lysate A431 Whole Cell Lysate NIH 3T3 Whole Cell Lysate MEF1 Whole Cell Lysate
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
	Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

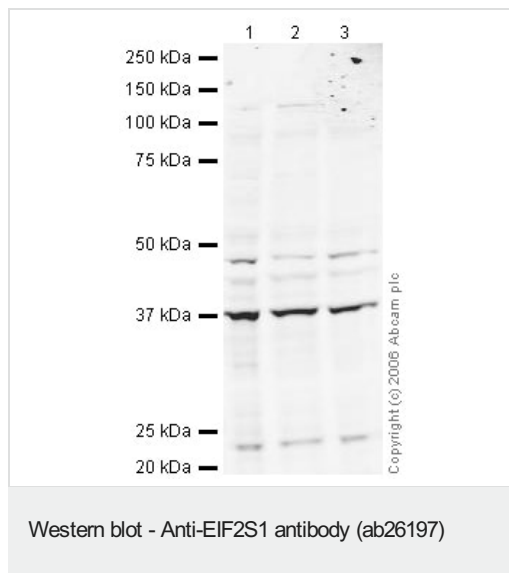
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab26197 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 1 µg/ml.
WB	★★★★★ (6)	Use at an assay dependent concentration. Detects a band of approximately 36 kDa (predicted molecular weight: 36 kDa).

Target

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).

Images



All lanes : Anti-EIF2S1 antibody (ab26197) at 1 µg/ml

Lane 1 : HeLa whole cell lysate

Lane 2 : Jurkat whole cell lysate ([ab7899](#))

Lane 3 : A-431 whole cell lysate ([ab7909](#))

Lysates/proteins at 20 µg per lane.

Secondary

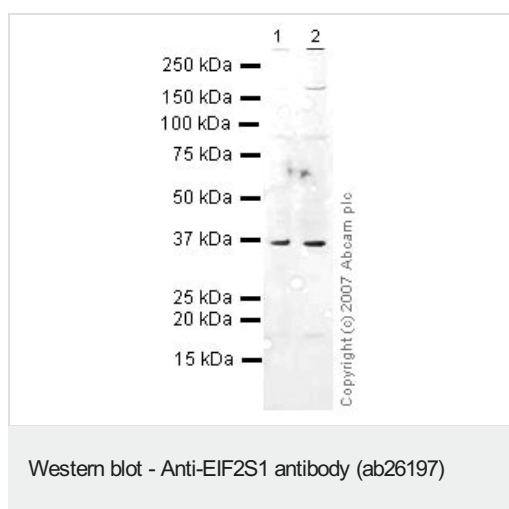
All lanes : Goat polyclonal to Rabbit IgG (Alexa Fluor® 680) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 36 kDa

Observed band size: 36 kDa

ab26197 detects a band of ~ 36 kDa in HeLa, Jurkat and A431 whole cell lysates. This corresponds to the predicted molecular weight for eIF2 alpha according to Swiss prot. A number of other bands are detected at ~ 48, 23 and 15 kDa. We do not know the identity of these bands and we predict they represent non-specific binding.



All lanes : Anti-EIF2S1 antibody (ab26197) at 1 µg/ml

Lane 1 : NIH/3T3 whole cell lysate ([ab7179](#))

Lane 2 : MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

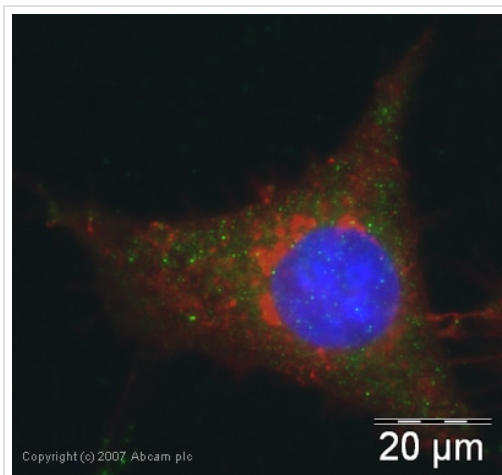
Secondary

All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 36 kDa

Observed band size: 36 kDa



Immunocytochemistry/ Immunofluorescence - Anti-EIF2S1 antibody (ab26197)

ICC/IF image of ab26197 stained human HeLa cells. The cells were 4% PFA fixed (10 min), permeabilised in TBS-T (20 min) and incubated with the antibody (ab26197, 1 µg/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to quench autofluorescence and block non-specific protein-protein interactions. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red). DAPI was used to stain the cell nuclei (blue).

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