


Anti-eIF4A1 antibody ab31217

★★★★★ [6 Abreviews](#) [53 References](#) [4 Images](#)

Overview

Product name	Anti-eIF4A1 antibody
Description	Rabbit polyclonal to eIF4A1
Host species	Rabbit
Specificity	Replenishment batches of our polyclonal antibody, ab31217 are tested in WB. Previous batches were additionally validated in ICC/IF, IHC-P and IP. These applications are still expected to work and are covered by our Abpromise guarantee. You may also be interested in our alternative recombinant antibody, ab185946 .
Tested applications	Suitable for: WB, IP, ICC/IF, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Cow, Human, African green monkey Predicted to work with: Monkey 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	This antibody gave a positive signal in the following whole cell lysates: HeLa (Human epithelial carcinoma cell line) Jurkat (Human T cell lymphoblast-like cell line) A431 (Human epithelial carcinoma cell line) NIH 3T3 (Mouse embryonic fibroblast cell line) MEF1 (Mouse embryonic fibroblast cell line) PC12 (Rat adrenal pheochromocytoma cell line) This antibody gave a positive signal in the following tissue lysates: Liver (Mouse) Pancreas (Mouse) Testis (Mouse)
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 ab31217 in the following tested applications.

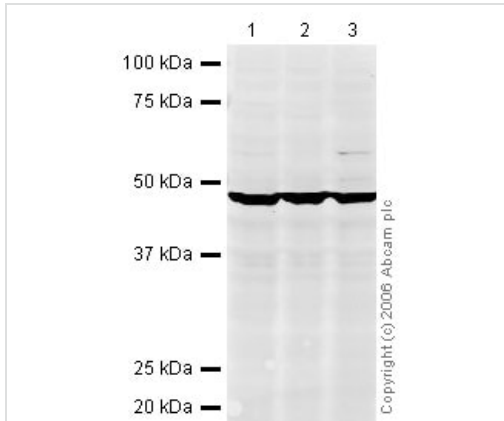
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (4)	Use a concentration of 1 µg/ml. Detects a band of approximately 47 kDa (predicted molecular weight: 47 kDa).
IP	★★★★★ (1)	Use at an assay dependent concentration.
ICC/IF	★★★★★ (1)	Use a concentration of 1 µg/ml.
IHC-P		Use at an assay dependent concentration.

Target

Function	ATP-dependent RNA helicase which is a subunit of the eIF4F complex involved in cap recognition and is required for mRNA binding to ribosome. In the current model of translation initiation, eIF4A unwinds RNA secondary structures in the 5'-UTR of mRNAs which is necessary to allow efficient binding of the small ribosomal subunit, and subsequent scanning for the initiator codon.
Sequence similarities	Belongs to the DEAD box helicase family. eIF4A subfamily. Contains 1 helicase ATP-binding domain. Contains 1 helicase C-terminal domain.

Images



Western blot - Anti-eIF4A1 antibody (ab31217)

All lanes : Anti-eIF4A1 antibody (ab31217) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : Jurkat whole cell lysate ([ab78999](#))

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

Lysates/proteins at 20 µg per lane.

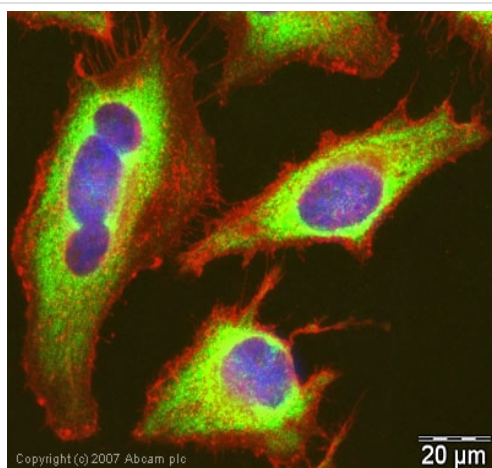
Secondary

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

Performed under reducing conditions.

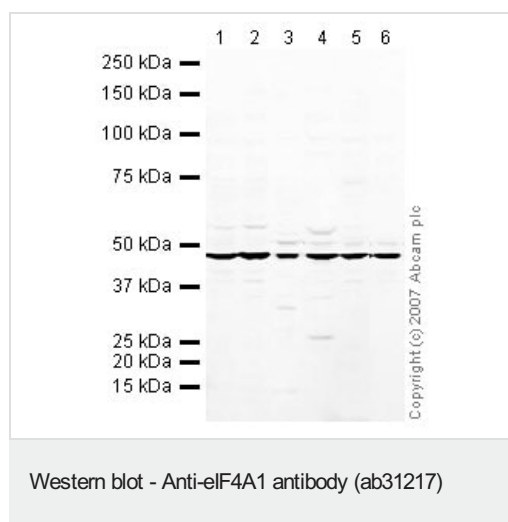
Predicted band size: 47 kDa

Observed band size: 47 kDa



Immunocytochemistry/ Immunofluorescence - Anti-eIF4A1 antibody (ab31217)

ICC/IF image of ab31217 stained human HeLa cells. The cells were methanol fixed (5 min) and incubated with the antibody (ab31217, 1µg/ml) for 1h at room temperature. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Image-iT™ FX Signal Enhancer was used to quench autofluorescence. 5% BSA (in TBS-T) was used for all other blocking steps. DAPI was used to stain the cell nuclei (blue). Alexa Fluor® 594 WGA was used to label plasma membranes (red).



All lanes : Anti-eIF4A1 antibody (ab31217) at 1 µg/ml

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

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

Lane 3 : Liver (Mouse) Tissue Lysate - normal tissue

Lane 4 : Mouse pancreas tissue lysate - total protein ([ab29363](#))

Lane 5 : Testis (Mouse) Tissue Lysate - normal tissue

Lane 6 : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

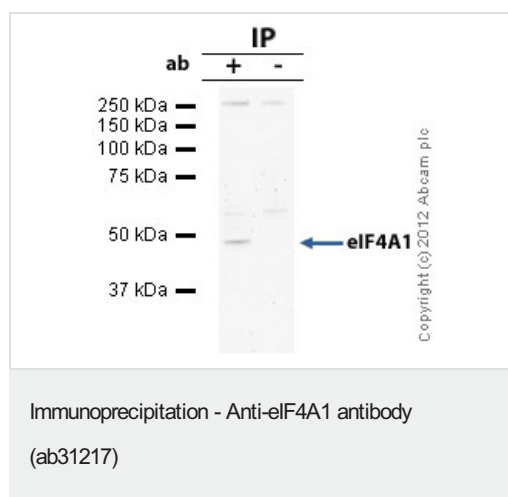
Secondary

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

Performed under reducing conditions.

Predicted band size: 47 kDa

Observed band size: 47 kDa



eIF4A1 was immunoprecipitated using 0.5mg HeLa whole cell extract, 5µg of Rabbit polyclonal to eIF4A1 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, HeLa whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70°C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab31217.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) ([ab99697](#)).

Band: 47kDa: eIF4A1

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