abcam

Product datasheet

Anti-elF4A3 antibody ab32485

★★★★★ 9 Abreviews 17 References 画像数 5

製品の概要

製品名 Anti-elF4A3 antibody

製品の詳細 Rabbit polyclonal to elF4A3

由来種 Rabbit

アプリケーション 適用あり: IHC-P, IP, ICC/IF, WB

種交差性 交差種: Rat, Human

交差が予測される動物種: Chicken, Cow, Xenopus laevis, Zebrafish, Cynomolgus monkey 🔷

免疫原 Synthetic peptide corresponding to Human elF4A3 aa 1-100.

(Peptide available as ab32484)

特記事項

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.

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

製品の特性

製品の状態 Liqui

保存方法 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.

バッファー 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.

精製度 Immunogen affinity purified

ポリ/モノ ポリクローナル

アイソタイプ lgG

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The Abpromise guarantee <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab32485の使用に適用されますアプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
IP	★★☆☆☆ (1)	Use a concentration of 5 µg/ml.
ICC/IF	★★★★★ (2)	Use a concentration of 5 µg/ml.
WB	★★★★ ★ ★ ★ ★ (6)	Use a concentration of 1 µg/ml. Detects a band of approximately 47 kDa (predicted molecular weight: 47 kDa).

ターゲット情報

機能

ATP-dependent RNA helicase. Component of a splicing-dependent multiprotein exon junction complex (EJC) deposited at splice junction on mRNAs. The EJC is a dynamic structure consisting of a few core proteins and several more peripheral nuclear and cytoplasmic associated factors that join the complex only transiently either during EJC assembly or during subsequent mRNA metabolism. Core components of the EJC, that remains bound to spliced mRNAs throughout all stages of mRNA metabolism, functions to mark the position of the exon-exon junction in the mature mRNA and thereby influences downstream processes of gene expression including mRNA splicing, nuclear mRNA export, subcellular mRNA localization, translation efficiency and nonsense-mediated mRNA decay (NMD). Constitutes at least part of the platform anchoring other EJC proteins to spliced mRNAs. Its RNA-dependent ATPase and RNA-helicase activities are induced by CASC3, but abolished in presence of the MAGOH/RBM8A heterodimer, thereby trapping the ATP-bound EJC core onto spliced mRNA in a stable conformation. The inhibition of ATPase activity by the MAGOH/RBM8A heterodimer increases the RNA-binding affinity of the EJC. Involved in translational enhancement of spliced mRNAs after formation of the 80S ribosome complex. Binds spliced mRNA in sequence-independent manner, 20-24 nucleotides upstream of mRNA exon-exon junctions. Shows higher affinity for single-stranded RNA in an ATPbound core EJC complex than after the ATP is hydrolyzed.

組織特異性

Ubiquitously expressed.

配列類似性

Belongs to the DEAD box helicase family. elF4A subfamily.

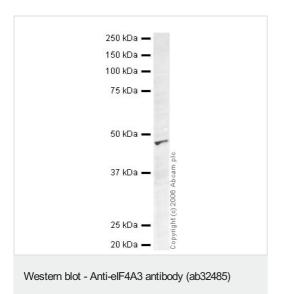
Contains 1 helicase ATP-binding domain.
Contains 1 helicase C-terminal domain.

細胞内局在

Nucleus. Nucleus speckle. Cytoplasm. Nucleocytoplasmic shuttling protein. Travels to the cytoplasm as part of the exon junction complex (EJC) bound to mRNA. Detected in dendritic layer as well as the nuclear and cytoplasmic (somatic) compartments of neurons. Colocalizes with

STAU1 and FMR1 in dendrites.

画像



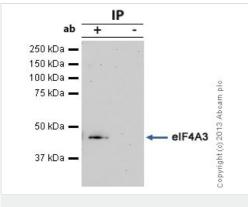
Anti-elF4A3 antibody (ab32485) at 1 μ g/ml + HeLa (Human epithelial carcinoma cell line) Nuclear Lysate at 20 μ g

Secondary

IR Dye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/15000 dilution

Performed under reducing conditions.

Predicted band size: 47 kDa **Observed band size:** 47 kDa



Immunoprecipitation - Anti-elF4A3 antibody (ab32485)

elF4A3 was immunoprecipitated using 0.5mg Hela whole cell extract, 5µg of Rabbit polyclonal to elF4A3 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 $40\mu l$ SDS loading buffer and incubated for 10min at $70^{\circ}C$; $10\mu l$ of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab32485.

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

Band: 47kDa; elF4A3

1 2
250 kDa —
150 kDa —
100 kDa —
75 kDa —
37 kDa —
25 kDa —
20 kDa —
20 kDa —
15 kDa —
15 kDa —

Western blot - Anti-elF4A3 antibody (ab32485)

All lanes : Anti-elF4A3 antibody (ab32485) at 1 μ g/ml

Lane 1 : MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lane 2: PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

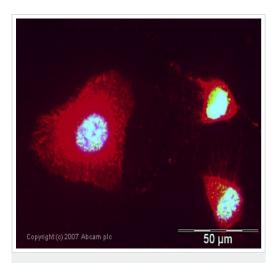
All lanes : IRDye 680 Conjugated Goat Anti-Rabbit lgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 47 kDa **Observed band size:** 46 kDa

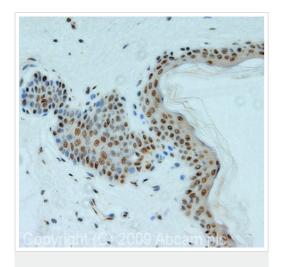
Additional bands at: 100 kDa. We are unsure as to the identity of

these extra bands.



Immunocytochemistry/ Immunofluorescence - AntieIF4A3 antibody (ab32485)

ICC/IF image of ab32485 stained human HeLa cells. The cells were PFA fixed (10 min), permabilised in TBS-T (20 min) and incubated with the antibody (ab32485, 5µg/ml) for 1h at room temperature. 1%BSA / 10% normal 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).



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-elF4A3 antibody (ab32485)

IHC image of eIF4A3 staining in human skin FFPE section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab32485, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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