abcam

Product datasheet

Recombinant Human eIF4A3 protein ab123151

1 Image

Description

Product name Recombinant Human elF4A3 protein

Purity > 95 % SDS-PAGE.

ab123151 is purified using conventional chromatography techniques.

Expression system Escherichia coli

Accession P38919

Protein length Full length protein

Animal free No

Nature Recombinant

Species Human

Sequence MGSSHHHHHH SSGLVPRGSH MGSHMATTAT

MATSGSARKR LLKEEDMTKV EFETSEEVDV

TPTFDTMGLR EDLLRGIYAY GFEKPSAIQQ RAIKQIIKGR DVIAQSQSGT GKTATFSISV LQCLDIQVRE TQALILAPTR

ELAVQIQKGL LALGDYMNVQ CHACIGGTNV

GEDIRKLDYG QHVVAGTPGR VFDMIRRRSL RTRAIKMLVL DEADEMLNKG FKEQIYDVYR YLPPATQVVL ISATLPHEIL EMTNKFMTDP IRILVKRDEL TLEGIKQFFV AVEREEWKFD TLCDLYDTLT ITQAVIFCNT KRKVDWLTEK MREANFTVSS

MHGDMPQKER ESIMKEFRSG ASRVLISTDV

WARGLDVPQV SLIINYDLPN NRELYIHRIG RSGRYGRKGV

AINFVKNDDI RILRDIEQYY STQIDEMPMN VADLI

Predicted molecular weight 49 kDa including tags

Amino acids 1 to 411

Tags His tag N-Terminus

Specifications

Our Abpromise guarantee covers the use of ab123151 in the following tested applications.

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

Applications Mass Spectrometry

SDS-PAGE

Mass spectrometry MALDI-TOF

1

Preparation and Storage

Stability and Storage

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.

00.8:Ha

Constituents: 0.03% DTT, 0.32% Tris HCl, 30% Glycerol (glycerin, glycerine), 1.17% Sodium chloride

General Info

Function

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.

Tissue specificity

Ubiquitously expressed.

Sequence similarities

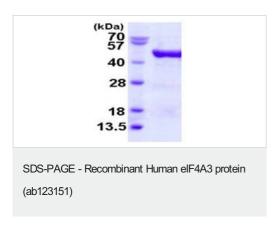
Belongs to the DEAD box helicase family. elF4A subfamily.

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

Cellular localization

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.

Images



15% SDS-PAGE showing ab123151 at approximately 49.4kDa (3μg).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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 https://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