abcam

Product datasheet

Recombinant Human RED1 protein ab157847

1 Image

Description

Product name	Recombinant Human RED1 protein
Expression system	Wheat germ
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MDIEDEENMSSSSTDVKENRNLDNVSPKDGSTPGPGEG SQLSNGGGGGPG RKRPLEEGSNGHSKYRLKKRRKTPGPVLPKNALMQLNEIK PGLQYTLLSQ TGPVHAPLFVMSVEVNGQVFEGSGPTKKKAKLHAAEKAL RSFVQFPNASE AHLAMGRTLSVNTDFTSDQADFPDTLFNGFETPDKAEPP FYVGSNGDDSF SSSGDLSLSASPVPASLAQPPLPVLPPFPPPSGKNPVMIL NELRPGLKYD FLSESGESHAKSFVMSVVVDGQFFEGSGRNKKLAKARA AQSALAAIFNLH LDQTPSRQPIPSEGLQLHLPQVLADAVSRLVLGKFGDLTD NFSSPHARRK VLAGVVMTTGTDVKDAKVISVSTGTKCINGEYMSDRGLAL NDCHAEIISR RSLLRFLYTQLELYLNNKDDQKRSIFQKSERGGFRLKENV QFHLYISTSP CGDARIFSPHEPILEGSRSYTQAGVQWCNHGSLQPRPPG LLSDPSTSTFQ GAGTTEPADRHPNRKARGQLRTKIESGEGTIPVRSNASIQT WDGVLQGER LLTMSCSDKIARWNVVGIQGSLLSIFVEPIYFSSIILGSLYHG DHLSRAM YQRISNIEDLPPLYTLNKPLLSGISNAEARQPGKAPNFSVN WTVGDSAIE VINATTGKDELGRASRLCKHALYCRWMRVHGKVPSHLLR SKITKPNVYHE SKLAAKEYQAAKARLFTAFIKAGLGAWVEKPTEQDQFSLT

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Amino acids	1 to 741
Tags	GST tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab157847** in the following tested applications.

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

Applications	ELISA Western blot
Form	Liquid
Additional notes	

Preparation and Storage

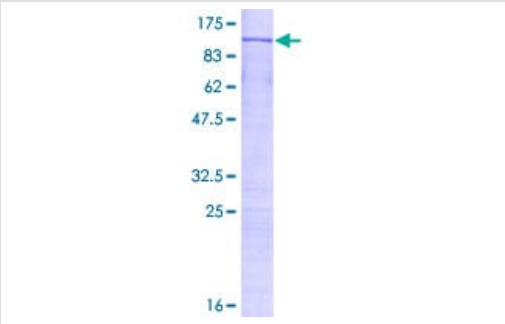
Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 8.00 Constituents: 0.31% Glutathione, 0.79% Tris HCl

General Info

Function	Catalyzes the hydrolytic deamination of adenosine to inosine in double-stranded RNA (dsRNA) referred to as A-to-I RNA editing. This may affect gene expression and function in a number of ways that include mRNA translation by changing codons and hence the amino acid sequence of proteins; pre-mRNA splicing by altering splice site recognition sequences; RNA stability by changing sequences involved in nuclease recognition; genetic stability in the case of RNA virus genomes by changing sequences during viral RNA replication; and RNA structure-dependent activities such as microRNA production or targeting or protein-RNA interactions. Can edit both viral and cellular RNAs and can edit RNAs at multiple sites (hyper-editing) or at specific sites (site-specific editing). Its cellular RNA substrates include: bladder cancer-associated protein (BLCAP), neurotransmitter receptors for glutamate (GRIA2 and GRIK2) and serotonin (HTR2C), GABA receptor (GABRA3) and potassium voltage-gated channel (KCNA1). Site-specific RNA editing of transcripts encoding these proteins results in amino acid substitutions which consequently alter their functional activities. Edits GRIA2 at both the Q/R and R/G sites efficiently but converts the adenosine in hotspot1 much less efficiently. Can exert a proviral effect towards human immunodeficiency virus type 1 (HIV-1) and enhances its replication via both an editing-dependent and editing-independent mechanism. The former involves editing of adenosines in the 5'UTR while the latter occurs via suppression of EIF2AK2/PKR activation and function. Can inhibit cell proliferation and migration and can stimulate exocytosis.
Tissue specificity	Highly expressed in brain and heart and at lower levels in placenta. Fair expression in lung, liver and kidney. Detected in brain, heart, kidney, lung and liver (at protein level). Isoform 5 is high expressed in hippocampus and colon. Isoform 5 is expressed in pediatric astrocytomas and the protein has a decreased RNA-editing activity. The decrease in RNA editing correlates with the grade of malignancy of the tumors, with the high grade tumors showing lower editing is seen.
Sequence similarities	Contains 1 A to I editase domain.

	Contains 2 DRBM (double-stranded RNA-binding) domains.
Cellular localization	Nucleus. Nucleus > nucleolus. Shuttles between nucleoli and the nucleoplasm.

Images



SDS-PAGE - Recombinant Human RED1 protein (ab157847)

ab157847 on a 12.5% SDS-PAGE stained with Coomassie Blue.

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