abcam

Product datasheet

Recombinant Human CIRP protein ab106903

1 Image

Description

Product name	Recombinant Human CIRP protein
Purity	> 95 % SDS-PAGE. ab106903 is purified using conventional chromatography techniques.
Expression system	Escherichia coli
Accession	Q14011
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MGSSHHHHHHSSGLVPRGSHMASDEGKLFVGGLSFDTN EQSLEQVFSKYG QISEVVVVKDRETQRSRGFGFVTFENIDDAKDAMMAMNG KSVDGRQIRVD QAGKSSDNRSRGYRGGSAGGRGFFRGGRGRGRGFSRG GGDRGYGGNRFES RSGGYGGSRDYYSSRSQSGGYSDRSSGGSYRDSYDSYA THNE
Predicted molecular weight	21 kDa including tags
Amino acids	1 to 172
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab106903** 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
Form	Liquid

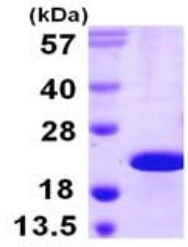
Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. pH: 8.00 Constituents: 0.02% DTT, 0.32% Tris HCl, 50% Glycerol (glycerin, glycerine), 0.58% Sodium chloride

General Info

Function	Cold-inducible mRNA binding protein that plays a protective role in the genotoxic stress response by stabilizing transcripts of genes involved in cell survival. Acts as a translational activator. Seems to play an essential role in cold-induced suppression of cell proliferation. Binds specifically to the 3'-untranslated regions (3'-UTRs) of stress-responsive transcripts RPA2 and TXN. Acts as a translational repressor (By similarity). Promotes assembly of stress granules (SGs), when overexpressed.
Tissue specificity	Ubiquitous.
Sequence similarities	Contains 1 RRM (RNA recognition motif) domain.
Domain	Both the RRM domain and the arginine, glycine (RGG) rich domain are necessary for binding to the TXN 3'-untranslated region. Both the RRM domain and the arginine, glycine (RGG) rich domain (RGG repeats) are necessary for optimal recruitment into SGs upon cellular stress. The C-terminal domain containing RGG repeats is necessary for translational repression.
Post-translational modifications	Methylated on arginine residues. Methylation of the RGG motifs is a prerequisite for recruitment into SGs. Phosphorylated by CK2, GSK3A and GSK3B. Phosphorylation by GSK3B increases RNA-binding activity to the TXN 3'-UTR transcript upon exposure to UV radiation.
Cellular localization	Nucleus > nucleoplasm. Cytoplasm. Translocates from the nucleus to the cytoplasm after exposure to UV radiation. Translocates from the nucleus to the cytoplasm into stress granules upon various cytoplasmic stresses, such as osmotic and heat shocks. Its recruitment into stress granules occurs in the absence of TIAR proteins.

Images



SDS-PAGE - Recombinant Human CIRP protein (ab106903)

15% SDS-PAGE showing ab106903 at approximately 20.8kDa (3µg).

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- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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