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ZFP36 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP8952c

Specification

ZFP36 Antibody (Center) Blocking Peptide - Product Information

Primary Accession P26651

ZFP36 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 7538

Other Names
Tristetraprolin, TTP, G0/G1 switch regulatory protein 24, Growth factor-inducible nuclear protein NUP475, Protein TIS11A, TIS11, Zinc finger protein 36 homolog, Zfp-36, ZFP36, G0S24, RNF162A, TIS11A, TTP

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8952c was selected from the Center region of human ZFP36. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ZFP36 Antibody (Center) Blocking Peptide - Protein Information

Name ZFP36 (HGNC:12862)

Function
Zinc-finger RNA-binding protein that destabilizes several cytoplasmic AU-rich element (ARE)-containing mRNA transcripts by promoting their poly(A) tail removal or deadenylation, and hence provide a mechanism for attenuating protein synthesis (PubMed:10330172, PubMed:10751406, PubMed:11279239, PubMed:12115244, PubMed:12748283, PubMed:15187101, PubMed:15634918, PubMed:<a

href="http://www.uniprot.org/citations/16702957" target="_blank">16702957, PubMed:17030620, PubMed:20221403, PubMed:20702587, PubMed:21775632, PubMed:23644599, PubMed:25815583, PubMed:27193233, PubMed:31439631, PubMed:9703499). Acts as an 3'-untranslated region (UTR) ARE mRNA-binding adapter protein to communicate signaling events to the mRNA decay machinery (PubMed:15687258, PubMed:23644599). Recruits deadenylase CNOT7 (and probably the CCR4-NOT complex) via association with CNOT1, and hence promotes ARE-mediated mRNA deadenylation (PubMed:23644599). Functions also by recruiting components of the cytoplasmic RNA decay machinery to the bound ARE-containing mRNAs (PubMed:11719186, PubMed:12748283, PubMed:15687258, PubMed:16364915). Self regulates by destabilizing its own mRNA (PubMed:15187101). Binds to 3'-UTR ARE of numerous mRNAs and of its own mRNA (PubMed:10330172, PubMed:10751406, PubMed:12115244, PubMed:15187101, PubMed:15634918, PubMed:16702957, PubMed:17030620, PubMed:19188452, PubMed:20221403, PubMed:20702587, PubMed:21775632, PubMed:25815583). Plays a role in anti-inflammatory responses; suppresses tumor necrosis factor (TNF)-alpha production by stimulating ARE-mediated TNF-alpha mRNA decay and several other inflammatory ARE- containing mRNAs in interferon (IFN)- and/or lipopolysaccharide (LPS)- induced macrophages (By similarity). Also plays a role in the regulation of dendritic cell maturation at the post-transcriptional level, and hence operates as part of a negative feedback loop to limit the inflammatory response (PubMed:18367721). Promotes ARE-mediated mRNA decay of hypoxia-inducible factor HIF1A mRNA during the response of endothelial cells to hypoxia (PubMed:21775632). Positively regulates early adipogenesis of preadipocytes by promoting ARE-mediated mRNA decay of immediate early genes (IEGs) (By similarity). Negatively regulates hematopoietic/erythroid cell differentiation by promoting ARE-mediated mRNA decay of the transcription factor STAT5B mRNA (PubMed:20702587). Plays a role in maintaining skeletal muscle satellite cell quiescence by promoting ARE-mediated mRNA decay of the myogenic determination factor MYOD1 mRNA (By similarity). Associates also with and regulates the expression of non-ARE-containing target mRNAs at the post-transcriptional level, such as MHC class I mRNAs (PubMed:18367721). Participates in association with argonaute RISC catalytic components in the ARE-mediated mRNA decay mechanism; assists microRNA (miRNA) targeting ARE-containing mRNAs (PubMed:15766526). May also play a role in the regulation of cytoplasmic mRNA

decapping; enhances decapping of ARE-containing RNAs, in vitro (PubMed:16364915). Involved in the delivery of target ARE-mRNAs to processing bodies (PBs) (PubMed:17369404). In addition to its cytosolic mRNA-decay function, affects nuclear pre-mRNA processing (By similarity). Negatively regulates nuclear poly(A)-binding protein PABPN1-stimulated polyadenylation activity on ARE-containing pre-mRNA during LPS- stimulated macrophages (By similarity). Also involved in the regulation of stress granule (SG) and P-body (PB) formation and fusion (By similarity). Plays a role in the regulation of keratinocyte proliferation, differentiation and apoptosis (PubMed:27182009). Plays a role as a tumor suppressor by inhibiting cell proliferation in breast cancer cells (PubMed:26926077).

Cellular Location
Nucleus. Cytoplasm. Cytoplasmic granule. Cytoplasm, P-body. Note=Shuttles between nucleus and cytoplasm in a CRM1-dependent manner (By similarity). Localized predominantly in the cytoplasm in a p38 MAPK- and YWHAB-dependent manner (By similarity). Colocalizes with SH3KBP1 and MAP3K4 in the cytoplasm (PubMed:20221403). Component of cytoplasmic stress granules (SGs) (By similarity). Localizes to cytoplasmic stress granules upon energy starvation (PubMed:15014438). Localizes in processing bodies (PBs) (PubMed:17369404). Excluded from stress granules in a phosphorylation MAPKAPK2-dependent manner (By similarity). Shuttles in and out of both cytoplasmic P-body and SGs (By similarity) {ECO:0000250|UniProtKB:P22893, ECO:0000269|PubMed:15014438, ECO:0000269|PubMed:17369404, ECO:0000269|PubMed:20221403}

Tissue Location
Expressed in both basal and suprabasal epidermal layers (PubMed:27182009). Expressed in epidermal keratinocytes (PubMed:27182009). Expressed strongly in mature dendritic cells (PubMed:18367721). Expressed in immature dendritic cells (at protein level) (PubMed:18367721).

ZFP36 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ZFP36 Antibody (Center) Blocking Peptide - Images

ZFP36 Antibody (Center) Blocking Peptide - Background

ZFP36 is probable regulatory protein with a novel zinc finger structure involved in regulating the response to growth factors. Has been experimentally shown to be able to bind zinc.

ZFP36 Antibody (Center) Blocking Peptide - References

Lee,H.H., et.al., Int. J. Cancer 126 (8), 1817-1827 (2010)Datta,S., eet.al., J. Immunol. 184 (3), 1484-1491 (2010)