



LARP7 Antibody (C-term) Blocking peptide

Synthetic peptide Catalog # BP12990b

Specification

LARP7 Antibody (C-term) Blocking peptide - Product Information

Primary Accession <u>Q4G0I3</u>

LARP7 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 51574

Other Names

La-related protein 7, La ribonucleoprotein domain family member 7, P-TEFb-interaction protein for 7SK stability, PIP7S, LARP7

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.

LARP7 Antibody (C-term) Blocking peptide - Protein Information

Name LARP7

{ECO:0000303|PubMed:18483487, ECO:0000312|HGNC:HGNC:24912}

Function

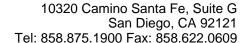
RNA-binding protein that specifically binds distinct small nuclear RNA (snRNAs) and regulates their processing and function (PubMed:18249148,

LARP7 Antibody (C-term) Blocking peptide - Background

LARP7 is a negative transcriptional regulator of polymerase II genes, acting by means of the 7SK RNP system. Within the 7SK RNP complex, the positive transcription elongation factor b (P-TEFb) is sequestered in an inactive form, preventing RNA polymerase II phosphorylation and subsequent transcriptional elongation.

LARP7 Antibody (C-term) Blocking peptide - References

Tyagi, M., et al. J. Virol. 84(13):6425-6437(2010)Kalsi, G., et al. Hum. Mol. Genet. 19(12):2497-2506(2010)Markert, A., et al. EMBO Rep. 9(6):569-575(2008)Krueger, B.J., et al. Nucleic Acids Res. 36(7):2219-2229(2008)He, N., et al. Mol. Cell 29(5):588-599(2008)





PubMed:32017898).

Specifically binds the 7SK snRNA (7SK RNA) and acts as a core component of the 7SK ribonucleoprotein (RNP) complex, thereby acting as a negative regulator of transcription elongation by RNA polymerase

II (PubMed:<a href="http://www.uniprot.org" /citations/18249148"

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PubMed:<a href="http://www.uniprot.org/ci tations/18483487"

target=" blank">18483487). The 7SK RNP complex sequesters the positive transcription elongation factor b (P-TEFb) in a large inactive 7SK RNP complex preventing RNA polymerase II phosphorylation and subsequent transcriptional elongation (PubMed:18249148, PubMed:<a href="http://www.uniprot.org/ci tations/18483487"

target=" blank">18483487). The 7SK RNP complex also promotes snRNA gene transcription by RNA polymerase II via interaction with the little elongation complex (LEC) (PubMed:28254838). LARP7 specifically binds to the highly conserved 3'-terminal U-rich stretch of 7SK RNA: on stimulation, remains associated with 7SK RNA, whereas P-TEFb is released from the complex (PubMed: <a href="http://www.uni prot.org/citations/18483487"

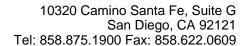
target=" blank">18483487,

PubMed:<a href="http://www.uniprot.org/ci tations/18281698"

target=" blank">18281698). LARP7 also acts as a regulator of mRNA splicing fidelity by promoting U6 snRNA processing (PubMed:<a href="http://www.uniprot.org/c itations/32017898"

target=" blank">32017898).

Specifically binds U6 snRNAs and associates with a subset of box C/D RNP complexes: promotes U6 snRNA 2'-O-methylation by facilitating U6 snRNA loading into box C/D RNP complexes (PubMed:32017898). U6 snRNA 2'-O-methylation is required for mRNA splicing fidelity (PubMed:32017898). Binds U6





snRNAs with a 5'- CAGGG-3' sequence motif (PubMed:32017898). U6 snRNA processing is required for spermatogenesis (By similarity).

Cellular Location Nucleus, nucleoplasm

LARP7 Antibody (C-term) Blocking peptide - Protocols

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

• Blocking Peptides