

LIN28A Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2765a**Specification**

LIN28A Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q9H9Z2](#)**LIN28A Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 79727**Other Names**

Protein lin-28 homolog A, Lin-28A, Zinc finger CCHC domain-containing protein 1, LIN28A, CSDD1, LIN28, ZCCHC1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2765a](/products/AP2765a) was selected from the N-term region of human LIN28A. 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.

LIN28A Antibody (N-term) Blocking Peptide - Protein Information**Name** LIN28A**Synonyms** CSDD1, LIN28, ZCCHC1**Function**

RNA-binding protein that inhibits processing of pre-let-7 miRNAs and regulates translation of mRNAs that control developmental timing, pluripotency and metabolism (PubMed:[21247876](http://www.uniprot.org/citations/21247876)). Seems to recognize a common structural G-quartet (G4) feature in its miRNA and mRNA targets (Probable). 'Translational enhancer' that drives specific mRNAs to polysomes and increases the efficiency of protein synthesis. Its association with the translational machinery and target mRNAs results in an increased number of initiation events per molecule of mRNA and, indirectly, in mRNA stabilization. Binds IGF2 mRNA, MYOD1 mRNA, ARBP/36B4 ribosomal protein mRNA and its own mRNA. Essential for skeletal muscle differentiation program through the translational up- regulation of

IGF2 expression. Suppressor of microRNA (miRNA) biogenesis, including that of let-7, miR107, miR-143 and miR-200c. Specifically binds the miRNA precursors (pre-miRNAs), recognizing an 5'-GGAG-3' motif found in pre-miRNA terminal loop, and recruits TUT4 and TUT7 uridylyltransferases (PubMed: [18951094](http://www.uniprot.org/citations/18951094) PubMed: [19703396](http://www.uniprot.org/citations/19703396) PubMed: [22118463](http://www.uniprot.org/citations/22118463) PubMed: [22898984](http://www.uniprot.org/citations/22898984)). This results in the terminal uridylation of target pre-miRNAs (PubMed: [18951094](http://www.uniprot.org/citations/18951094) PubMed: [19703396](http://www.uniprot.org/citations/19703396) PubMed: [22118463](http://www.uniprot.org/citations/22118463) PubMed: [22898984](http://www.uniprot.org/citations/22898984)). Uridylated pre-miRNAs fail to be processed by Dicer and undergo degradation. The repression of let-7 expression is required for normal development and contributes to maintain the pluripotent state by preventing let-7-mediated differentiation of embryonic stem cells (PubMed: [18951094](http://www.uniprot.org/citations/18951094) PubMed: [19703396](http://www.uniprot.org/citations/19703396) PubMed: [22118463](http://www.uniprot.org/citations/22118463) PubMed: [22898984](http://www.uniprot.org/citations/22898984)). Localized to the periendoplasmic reticulum area, binds to a large number of spliced mRNAs and inhibits the translation of mRNAs destined for the ER, reducing the synthesis of transmembrane proteins, ER or Golgi lumen proteins, and secretory proteins. Binds to and enhances the translation of mRNAs for several metabolic enzymes, such as PFKF, PDHA1 or SDHA, increasing glycolysis and oxidative phosphorylation. Which, with the let-7 repression may enhance tissue repair in adult tissue (By similarity).

Cellular Location

Cytoplasm. Rough endoplasmic reticulum {ECO:0000250|UniProtKB:Q8K3Y3}. Cytoplasm, P-body. Cytoplasm, Stress granule. Nucleus, nucleolus {ECO:0000250|UniProtKB:Q8K3Y3}. Note=Predominantly cytoplasmic (PubMed:22118463). In the cytoplasm, localizes to peri-endoplasmic reticulum regions and detected in the microsomal fraction derived from rough endoplasmic reticulum (RER) following subcellular fractionation May be bound to the cytosolic surface of RER on which ER-associated mRNAs are translated (By similarity). Shuttle from the nucleus to the cytoplasm requires RNA-binding (PubMed:17617744). Nucleolar localization is observed in 10-15% of the nuclei in differentiated myotubes (By similarity). {ECO:0000250|UniProtKB:Q8K3Y3, ECO:0000269|PubMed:17617744, ECO:0000269|PubMed:22118463}

Tissue Location

Expressed in embryonic stem cells, placenta and testis. Tends to be up-regulated in HER2-overexpressing breast tumors

LIN28A Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

LIN28A Antibody (N-term) Blocking Peptide - Images

LIN28A Antibody (N-term) Blocking Peptide - Background

LIN28A acts as a 'translational enhancer', driving specific mRNAs to polysomes and thus increasing the efficiency of protein synthesis. Its association with the translational machinery and target mRNAs results in an increased number of initiation events per molecule of mRNA and, indirectly, in stabilizing the mRNAs. Binds IGF2 mRNA, MYOD1 mRNA, ARBP/36B4 ribosomal protein mRNA and its own mRNA. It is essential for skeletal muscle differentiation through the translational

up-regulation of IGF2 expression.

LIN28A Antibody (N-term) Blocking Peptide - References

Piskounova, E., J. Biol. Chem. 283 (31), 21310-21314 (2008) Wu, L., Mol. Cell. Biol. 25 (21), 9198-9208 (2005)