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Phospho-LIN28(S134) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3732a

Specification

Phospho-LIN28(S134) Antibody - Product Information

Application	**DB, IF,E**
Primary Accession	Q9H9Z2
Other Accession	NP_078950
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**

Phospho-LIN28(S134) Antibody - 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
This LIN28 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S134 of human LIN28.

Dilution
DB~~1:500
IF~~1:100
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Phospho-LIN28(S134) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-LIN28(S134) Antibody - 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). 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, PubMed:19703396, PubMed:22118463, PubMed:22898984). This results in the terminal uridylation of target pre-miRNAs (PubMed:18951094, PubMed:19703396, PubMed:22118463, PubMed: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, PubMed:19703396, PubMed:22118463, PubMed: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 PFKP, 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

Phospho-LIN28(S134) Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-LIN28(S134) Antibody - Images

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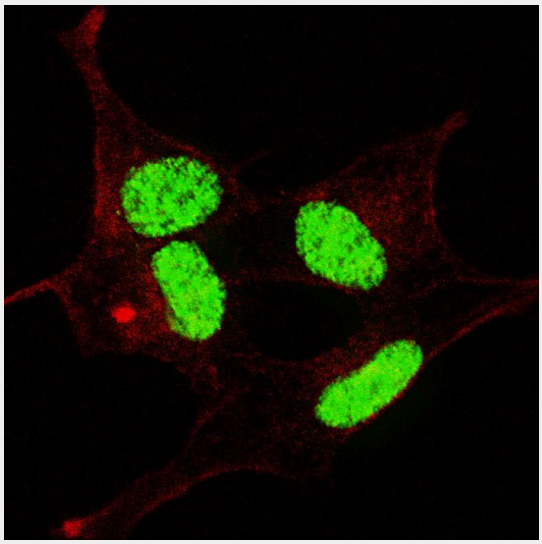
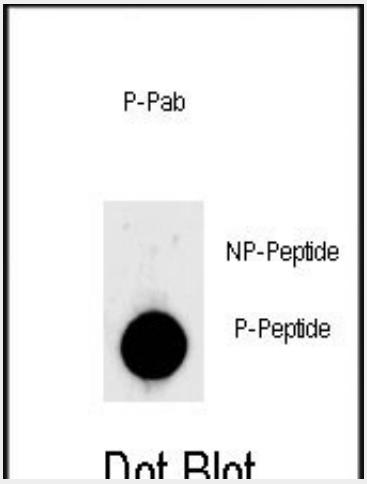


Fluorescent confocal image of SY5Y cells stained with phospho- LIN28- S134 antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AP3732a phospho- LIN28- S134 primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 5 min). Note the highly specific localization of the phospho- LIN28 immunosignal mainly to the nucleus, supported by Human Protein Atlas Data (http://www.proteinatlas.org/ENSG00000131914).



Dot blot analysis of anti-Phospho-LIN28-S134 Phospho-specific Pab (Cat. #AP3732a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-LIN28(S134) Antibody - Background

LIN28 is probable transcription factor. It plays a critical role in the control of immune response.

Phospho-LIN28(S134) Antibody - References

References for protein:
1.Qiu, C., et al. Nucleic Acids Res. 38(4):1240-1248(2010)
2.Iliopoulos, D., et al. Cell 139(4):693-706(2009)
3.Heo, I., et al. Cell 138(4):696-708(2009)

References for SY5Y (SH-SY5Y; ATCC#CRL-2266): 1. Ross RA, et al. Coordinate morphological and biochemical interconversion of human neuroblastoma cells. J. Natl. Cancer Inst. 71: 741-749, 1983. [PubMed: 6137586]; 2. Biedler JL, et al. Multiple neurotransmitter synthesis by human neuroblastoma cell lines and clones. Cancer Res. 38: 3751-3757, 1978. [PubMed: 29704].