

Product Name: Lin28 (2P18) Rabbit Monoclonal Antibody
Catalog #: AMRe13316

Summary

Production Name	Lin28 (2P18) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	LIN28A
Alternative Names	Protein lin-28 homolog A; LIN28A; CSDD1; LIN28; ZCCHC1;
Gene ID	79727.0
SwissProt ID	Q9H9Z2.

Application

Dilution Ratio	WB 1:500-1:2000
Molecular Weight	23kDa

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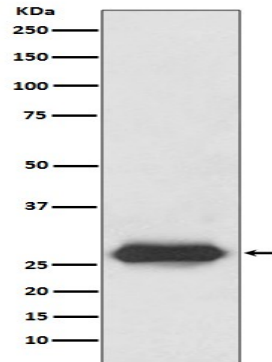
Background

Involved in the timing of developmental events and choice of stage specific cell fates. Acts as a suppressor of microRNA (miRNA) biogenesis by specifically binding the precursor let-7 (pre-let-7), a miRNA precursor. Acts by binding pre-let-7 and recruiting ZCCHC11/TUT4 uridylyltransferase, leading to the terminal uridylation of pre-let-7. 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) target="_blank">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. This results in the terminal uridylation of target pre-miRNAs. 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) target="_blank">18951094, PubMed: [19703396](http://www.uniprot.org/citations/19703396) target="_blank">19703396, PubMed: [22118463](http://www.uniprot.org/citations/22118463) target="_blank">22118463, PubMed: [22898984](http://www.uniprot.org/citations/22898984) target="_blank">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).

Research Area

Image Data

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Western blot analysis of Lin28 expression in NCCIT cell lysate.

Note

For research use only.