

# Rabbit Anti-Lin28 antibody

SL8443R

Product Name:	Lin28
Chinese Name:	RNABinding proteinLIN28抗体
Alias:	Lin 28; Lin28A; Lin 28 homolog (C. elegans); Lin 28 homolog A; Lin 28 homolog; Lin- 28; y Lin-28 homolog (C. elegans); Lin-28 homolog A; Lin-28A; Lin28; Lin28a; LN28A_HUMAN; Protein lin-28 homolog A; RNA binding protein lin 28; RNA binding protein lin-28; Tex17; ZCCHC1; Zinc finger CCHC domain containing 1; Zinc finger CCHC domain containing protein 1; Zinc finger CCHC domain-containing protein 1; AL024421; CSDD1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Pig, Cow, Horse, Rabbit, Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:50- 200 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	29kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Lin28:75-180/209
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	LIN-28 is a highly conserved, RNA-binding, cytoplasmic protein. It consists of a cold shock domain and retroviral-type (CCHC) zinc finger motifs that were first identified in

Caenorhabditis elegans. LIN-28 controls the timing of events during embryonic development and is readily expressed in embryos, embryonic stem cells and embryonal carcinoma cells. The presence of LIN-28 persists in some adult tissues including cardiac and skeletal muscle. In differentiating myoblasts, LIN-28 increases protein synthesis efficiency and binds to the growth and differentiation factor IGF-II.

#### Function:

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. Essential for skeletal muscle differentiation program through the translational up-regulation of IGF2 expression (By similarity). 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. Uridylated pre-let-7 miRNAs fail to be processed by Dicer and undergo degradation. Degradation of pre-let-7 in embryonic stem (ES) cells contributes to the maintenance of ES cells. In contrast, LIN28A down-regulation in neural stem cells by miR-125, allows the processing of pre-let-7. Specifically recognizes the 5'-GGAG-3' motif in the terminal loop of pre-let-7. Also recognizes and binds non pre-let-7 pre-miRNAs that contain the 5'-GGAG-3' motif in the terminal loop, leading to their terminal uridylation and subsequent degradation.

## Subunit:

Monomer. During skeletal muscle differentiation, associated with translation initiation complexes in the polysomal compartment. Directly interacts with EIF3S2. Interaction with NCL is RNA-dependent (By similarity). Interacts with ZCCHC11/TUT4.

#### Subcellular Location:

Cytoplasm. Nucleus > nucleolus. Nucleolar localization observed in 10-15% of the nuclei in differentiated myotubes (By similarity). Shuttles between the cytoplasm and the nucleus. Localizes to cytoplasmic processing bodies and stress granules.

**Tissue Specificity:** Expressed in embryonic stem cells (ES cells), placenta and testis.

## Similarity:

Belongs to the lin-28 family. Contains 2 CCHC-type zinc fingers. Contains 1 CSD (cold-shock) domain.

SWISS: Q9H9Z2

Gene ID:

# 79727

Database links:

Entrez Gene: 79727 Human

Entrez Gene: 83557 Mouse

Entrez Gene: 500562 Rat

<u>Omim: 611043</u> Human

SwissProt: Q9H9Z2 Human

SwissProt: Q8K3Y3 Mouse

Unigene: 86154 Human

Unigene: 302567 Mouse

<u>Unigene: 147538</u> Rat

# **Important Note:**

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This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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Paraformaldehyde-fixed, paraffin embedded (Rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Lin28) Polyclonal Antibody, Unconjugated (SL8443R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.