

LIN-28 (D-20): sc-54030

BACKGROUND

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.

REFERENCES

1. Moss, E.G., et al. 1997. The cold shock domain protein LIN-28 controls developmental timing in *C. elegans* and is regulated by the LIN-4 RNA. *Cell* 88: 637-646.
2. Siggerson, K., et al. 2002. Two genetic circuits repress the *Caenorhabditis elegans* heterochronic gene LIN-28 after translation initiation. *Dev. Biol.* 243: 215-225.
3. Moss, E.G., et al. 2003. Conservation of the heterochronic regulator LIN-28, its developmental expression and microRNA complementary sites. *Dev. Biol.* 258: 432-442.
4. Yang, D.H., et al. 2003. Temporally regulated expression of LIN-28 in diverse tissues of the developing mouse. *Gene Expr. Patterns* 3: 719-726.
5. Sempere, L.F., et al. 2004. Expression profiling of mammalian microRNAs uncovers a subset of brain-expressed microRNAs with possible roles in murine and human neuronal differentiation. *Genome Biol.* 5: R13.
6. Wu, L., et al. 2005. MicroRNA regulation of the mammalian LIN-28 gene during neuronal differentiation of embryonal carcinoma cells. *Mol. Cell. Biol.* 25: 9198-9208.
7. Guo, Y., et al. 2006. Identification and characterization of LIN-28 homolog B (LIN-28B) in human hepatocellular carcinoma. *Gene* 384: 51-61.

CHROMOSOMAL LOCATION

Genetic locus: LIN28A (human) mapping to 1p36.11, LIN28B (human) mapping to 6q16.3; Lin28a (mouse) mapping to 4 D3, Lin28b (mouse) mapping to 10 B2.

SOURCE

LIN-28 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LIN-28 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54030 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

LIN-28 (D-20) is recommended for detection of LIN-28 and LIN-28B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LIN-28 (D-20) is also recommended for detection of LIN-28 and LIN-28B in additional species, including equine, canine, bovine, porcine and avian.

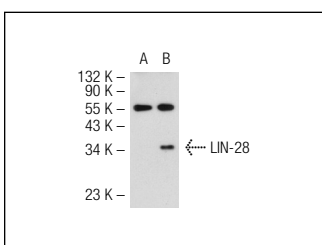
Molecular Weight of LIN-28: 28 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, PC-3 cell lysate: sc-2220 or LIN-28 (h2): 293T Lysate: sc-175922.

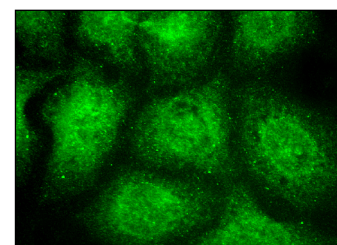
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



LIN-28 (D-20): sc-54030. Western blot analysis of LIN-28 expression in non-transfected (A) and human LIN-28 transfected: sc-175922 (B) 293T whole cell lysates.



LIN-28 (D-20): sc-54030. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic processing bodies (p-bodies) localization.

RESEARCH USE

For research use only, not for use in diagnostic procedures.


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Try **LIN-28 (C-9): sc-374460** or **LIN-28 (6D1F9): sc-293120**, our highly recommended monoclonal alternatives to LIN-28 (D-20).