

# LIN-28 (6D1F9 ): sc-293120

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: LIN28A (human) mapping to 1p36.11; Lin28a (mouse) mapping to 4 D3.

## SOURCE

LIN-28 (6D1F9 ) is a mouse monoclonal antibody raised against a purified recombinant protein corresponding to an internal region of LIN-28 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LIN-28 (6D1F9) is available conjugated to agarose (sc-293120 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-293120 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-293120 PE), fluorescein (sc-293120 FITC), Alexa Fluor® 488 (sc-293120 AF488), Alexa Fluor® 546 (sc-293120 AF546), Alexa Fluor® 594 (sc-293120 AF594) or Alexa Fluor® 647 (sc-293120 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-293120 AF680) or Alexa Fluor® 790 (sc-293120 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## 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 (6D1F9) is recommended for detection of LIN-28 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for LIN-28 siRNA (h): sc-106829, LIN-28 siRNA (m): sc-106990, LIN-28 shRNA Plasmid (h): sc-106829-SH, LIN-28 shRNA Plasmid (m): sc-106990-SH, LIN-28 shRNA (h) Lentiviral Particles: sc-106829-V and LIN-28 shRNA (m) Lentiviral Particles: sc-106990-V.

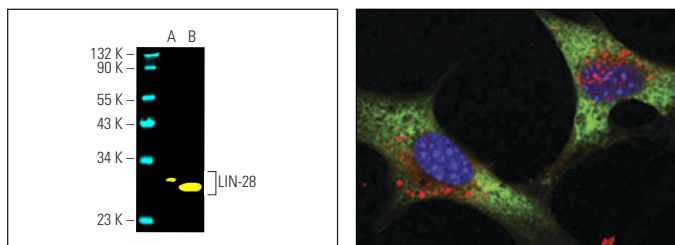
Molecular Weight of LIN-28: 28 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, JAR cell lysate: sc-2276 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



LIN-28 (6D1F9) Alexa Fluor® 488: sc-293120 AF488. Direct fluorescent western blot analysis of LIN-28 expression in JAR (A) and NTERA-2 cl.D1 (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 647: sc-516791.

LIN-28 (6D1F9): sc-293120. Immunofluorescence staining of NTERA-2 cells. Confocal microscopy showing cells labeled by anti-LIN-28 (6D1F9) (green) and DRAQ5 fluorescent DNA dye (blue).

## SELECT PRODUCT CITATIONS

- Liu, X., et al. 2017. ERK kinases phosphorylate LIN-28a to modulate P19 cell proliferation and differentiation. *J. Biol. Chem.* 292: 3970-3976.
- Yu, Q., et al. 2017. Downregulation of RIKP by miR-200a promotes the invasive ability of esophageal cancer cells by upregulating the expression of LIN28 and MMP-14. *Int. J. Clin. Exp. Pathol.* 10: 8452-8460.
- Zhang, H., et al. 2018. Silencing LIN28 promotes apoptosis in colorectal cancer cells by upregulating let-7c targeting of antiapoptotic BCL2L1. *Mol. Med. Rep.* 17: 5143-5149.
- Cilloni, D., et al. 2020. Transplantation induces profound changes in the transcriptional asset of hematopoietic stem cells: identification of specific signatures using machine learning techniques. *J. Clin. Med.* 9: 1670.
- Anfimova, P.A., et al. 2022. Ontogenetic changes in the expression of the Lin28 protein in the rat hypothalamic tuberal nuclei. *Int. J. Mol. Sci.* 23: 13468.

## RESEARCH USE

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA