SANTA CRUZ BIOTECHNOLOGY, INC.

LIN-28 (C-9): sc-374460

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

SOURCE

LIN-28 (C-9) is a mouse monoclonal antibody raised against amino acids 1-44 mapping at the N-terminus of LIN-28 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-374460 X, 200 µg/0.1 ml.

LIN-28 (C-9) is available conjugated to agarose (sc-374460 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374460 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374460 PE), fluorescein (sc-374460 FITC), Alexa Fluor® 488 (sc-374460 AF488), Alexa Fluor® 546 (sc-374460 AF546), Alexa Fluor® 594 (sc-374460 AF594) or Alexa Fluor® 647 (sc-374460 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374460 AF680) or Alexa Fluor® 790 (sc-374460 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

LIN-28 (C-9) is recommended for detection of LIN-28 of human origin by Western Blotting (starting dilution 1:100, 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).

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

LIN-28 (C-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of LIN-28: 28 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or LIN-28 (h): 293T Lysate: sc-175922.

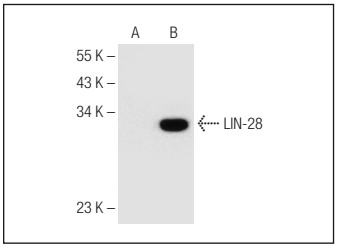
RESEARCH USE

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

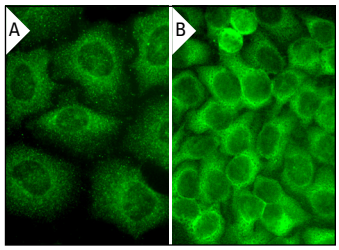
STORAGE

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

DATA



LIN-28 (C-9): sc-374460. Western blot analysis of LIN-28 expression in non-transfected: sc-117752 (**A**) and human LIN-28 transfected: sc-175922 (**B**) 293T whole cell lysates.



LIN-28 (C-9): sc-374460. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**,**B**).

SELECT PRODUCT CITATIONS

1. Haq, S., et al. 2019. The stability and oncogenic function of LIN28A are regulated by USP28. Biochim. Biophys. Acta Mol. Basis Dis. 1865: 599-610.
2. Ohnota, H., et al. 2020. Skeletal muscle cells derived from mouse skin cultures. Biochem. Biophys. Res. Commun. 528: 398-403.
3. Chen, Q., et al. 2020. Conversion between porcine naïve-like and primed ESCs and specific pluripotency marker identification. In Vitro Cell. Dev. Biol. Anim. 56: 412-423.
4. Zhang, Y., et al. 2021. Long non-coding RNA LINC00467 correlates to poor prognosis and aggressiveness of breast cancer. Front. Oncol. 11: 643394.
5. Rhie, B.H., et al. 2021. Ubiquitin-specific protease 3 deubiquitinates and stabilizes Oct4 protein in human embryonic stem cells. Int. J. Mol. Sci. 22: 5584.
6. Yu, N.K., et al. 2021. Interactome analysis illustrates diverse gene regulatory processes associated with LIN28A in human iPS cell-derived neural progenitor cells. iScience 24: 103321.
7. Tabatabaeifar, M., et al. 2021. Generation of an induced pluripotent stem cell line (DHMCi007-A) from a patient with autosomal recessive polycystic kidney disease (ARPKD) carrying a homozygous missense mutation in the fibrocystin-encoding PKHD1 gene. Stem Cell Res. 57: 102573.
8. Fluhr, T.L., et al. 2021. Generation of an induced pluripotent stem cell line (DHMCi006-A) from a patient with autosomal recessive polycystic kidney disease (ARPKD) carrying a compound heterozygous missense mutation in the fibrocystin encoding PKHD1 gene. Stem Cell Res. 57: 102579.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.