

# LIN-28B (F-21): sc-130802

## BACKGROUND

LIN-28B, also known as CSDD2, is a 250 amino acid protein that localizes to the cytoplasm during the early stages of the cell cycle and translocates to the nucleus during the S and G<sub>2</sub> phases of the cell cycle. Expressed at high levels in placenta, testis and fetal liver, LIN-28B contains one cold-shock domain and two CCHC-type zinc-fingers and is thought to play a role in cell growth, specifically when overexpressed. Overexpression of LIN-28B stimulates the growth of breast adenocarcinoma and hepatocellular carcinoma cells, implying a role for LIN-28B in aberrant cell proliferation and metastasis. LIN-28B exists as multiple alternatively spliced isoforms which are encoded by a gene that maps to human chromosome 6. Chromosome 6 contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

## REFERENCES

1. Moss, E.G. and Tang, L. 2003. Conservation of the heterochronic regulator lin-28, its developmental expression and microRNA complementary sites. *Dev. Biol.* 258: 432-442.
2. Guo, Y., et al. 2006. Identification and characterization of lin-28 homolog B (LIN28B) in human hepatocellular carcinoma. *Gene* 384: 51-61.
3. Thorgeirsson, S.S., et al. 2006. Functional genomics of hepatocellular carcinoma. *Hepatology* 43: S145-S150.
4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611044. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Heo, I., et al. 2008. Lin28 mediates the terminal uridylation of let-7 precursor MicroRNA. *Mol. Cell* 32: 276-284.

## CHROMOSOMAL LOCATION

Genetic locus: LIN28B (human) mapping to 6q16.3.

## SOURCE

LIN-28B (F-21) is a purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of LIN-28B of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

LIN-28B (F-21) is recommended for detection of LIN-28B of 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LIN-28B siRNA (h): sc-105614, LIN-28B shRNA Plasmid (h): sc-105614-SH and LIN-28B shRNA (h) Lentiviral Particles: sc-105614-V.

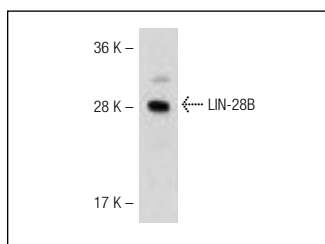
Molecular Weight of LIN-28B: 27 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

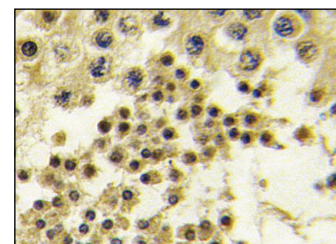
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



LIN-28B (F-21): sc-130802. Western blot analysis of LIN-28B expression in K-562 whole cell lysate.



LIN-28B (F-21): sc-130802. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Kim, C.W., et al. 2012. Ectopic over-expression of tristetraprolin in human cancer cells promotes biogenesis of let-7 by down-regulation of Lin28. *Nucleic Acids Res.* 40: 3856-3869.

## RESEARCH USE

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