

# LIN-9 (S-25): sc-133740

## BACKGROUND

LIN-9, also known as TGS, BARA or TGS1, is a 542 amino acid protein that localizes to the nucleoplasm and is a mammalian homolog of the *C. elegans* Lin-9 protein. Expressed in testis and thymus, LIN-9 functions as a component of the DREAM complex (also known as the LINC complex), which is comprised of several proteins, all of which work in concert to repress cell cycle-dependent genes. LIN-9 specifically acts as a tumor suppressor that associates with Rb and inhibits DNA synthesis, possibly also controlling the expression of genes that are required for the G<sub>1</sub>/S cell cycle transition. Three isoforms of LIN-9 exist due to alternative splicing events. The gene encoding LIN-9 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

## REFERENCES

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- Gagrica, S., et al. 2004. Inhibition of oncogenic transformation by mammalian LIN-9, a pRb-associated protein. *EMBO J.* 23: 4627-4638.
- Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609375. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Sandoval, R., et al. 2006. A mutant allele of BARA/LIN-9 rescues the Cdk4<sup>-/-</sup> phenotype by releasing the repression on E2F-regulated genes. *Exp. Cell Res.* 312: 2465-2475.
- Osterloh, L., et al. 2007. The human synMuv-like protein LIN-9 is required for transcription of G<sub>2</sub>/M genes and for entry into mitosis. *EMBO J.* 26: 144-157.
- Pilkinton, M., et al. 2007. Mip/LIN-9 regulates the expression of B-Myb and the induction of cyclin A, cyclin B, and Cdk1. *J. Biol. Chem.* 282: 168-175.
- Pilkinton, M., et al. 2007. Mammalian Mip/LIN-9 interacts with either the p107, p130/E2F4 repressor complex or B-Myb in a cell cycle-phase-dependent context distinct from the *Drosophila* dREAM complex. *Oncogene* 26: 7535-7543.

## CHROMOSOMAL LOCATION

Genetic locus: LIN9 (human) mapping to 1q42.12; Lin9 (mouse) mapping to 1 H4.

## SOURCE

LIN-9 (S-25) is an affinity purified rabbit polyclonal antibody raised against synthetic LIN-9 peptide of human origin.

## PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## RESEARCH USE

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

## APPLICATIONS

LIN-9 (S-25) is recommended for detection of LIN-9 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LIN-9 siRNA (h): sc-88786, LIN-9 siRNA (m): sc-105615, LIN-9 shRNA Plasmid (h): sc-88786-SH, LIN-9 shRNA Plasmid (m): sc-105615-SH, LIN-9 shRNA (h) Lentiviral Particles: sc-88786-V and LIN-9 shRNA (m) Lentiviral Particles: sc-105615-V.

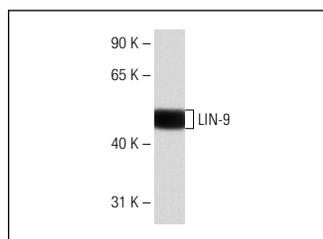
Molecular Weight of LIN-9 isoforms 1/2/3: 62/64/58 kDa.

Positive Controls: Human fetal brain whole cell lysate.

## 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).

## DATA



LIN-9 (S-25): sc-133740. Western blot analysis of LIN-9 expression in human fetal brain tissue extract.

## 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.


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Try **LIN-9 (C-10): sc-398234** or **LIN-9 (Mab#1): sc-130571**, our highly recommended monoclonal alternatives to LIN-9 (S-25).