

LIN-9 (Mab#6): sc-130572

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 G₁/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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- Sandoval, R., et al. 2006. A mutant allele of BARA/LIN-9 rescues the Cdk4^{-/-} phenotype by releasing the repression on E2F-regulated genes. *Exp. Cell Res.* 312: 2465-2475.
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- 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 (Mab#6) is a mouse monoclonal antibody raised against full-length recombinant LIN-9 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

LIN-9 (Mab#6) is recommended for detection of LIN-9 long and short forms 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 immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

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, 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 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.

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 for detailed protocols and support products.