

# FASP1 (L-12): sc-83613

## BACKGROUND

Mapping to chromosome 21, the FASP1 gene (FAPP1-associated protein 1) encodes a 233 amino acid protein that is homologous to the fission yeast protein Mis18. In yeast, Mis18 is localized to the centrosome and forms a complex with Mis16 to maintain the deacetylated state of histones specifically in the central core of centromeres. FASP1, also known as protein Mis18- $\alpha$  and C21orf45, is required for the recruitment of CENP-A to centrosomes and is thereby essential for normal chromosome segregation during mitosis. With expression in testis, FASP1 exists as a homodimer, a heterodimer with Mis18B or is present in a complex containing other Mis18 family members. FASP1 has been shown to bind to pp5644 in HeLa cells, where overexpression of pp5644 leads to inhibited growth and colony formation.

## REFERENCES

1. Tyson, J., et al. 1997. IsK and KvLQT1: mutation in either of the two subunits of the slow component of the delayed rectifier potassium channel can cause Jervell and Lange-Nielsen syndrome. *Hum. Mol. Genet.* 6: 2179-2185.
2. Müller, S., et al. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. *Proc. Natl. Acad. Sci. USA* 97: 206-211.
3. Hayashi, T., et al. 2004. Mis16 and Mis18 are required for CENP-A loading and histone deacetylation at centromeres. *Cell* 118: 715-729.
4. Ye, X.X., et al. 2005. P5644 interacts with phosphatidylinositol-4-phosphate adaptor protein-1 associated protein-1. *Mol. Cell. Biochem.* 271: 151-158.
5. Mao, R., et al. 2005. Primary and secondary transcriptional effects in the developing human Down syndrome brain and heart. *Genome Biol.* 6: R107.
6. Robakis, N.K. 2006. The discovery and mapping to chromosome 21 of the Alzheimer's amyloid gene: history revised. *J. Alzheimers Dis.* 10: 453-455.
7. Ait Yahya-Graison, E., et al. 2007. Classification of human chromosome 21 gene-expression variations in Down syndrome: impact on disease phenotypes. *Am. J. Hum. Genet.* 81: 475-491.

## CHROMOSOMAL LOCATION

Genetic locus: MIS18A (human) mapping to 21q22.11; Mis18a (mouse) mapping to 16 C3.3.

## SOURCE

FASP1 (L-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of FASP1 of human origin.

## 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.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83613 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

FASP1 (L-12) is recommended for detection of FASP1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

FASP1 (L-12) is also recommended for detection of FASP1 in additional species, including canine and bovine.

Suitable for use as control antibody for FASP1 siRNA (h): sc-91518, FASP1 shRNA Plasmid (h): sc-91518-SH and FASP1 shRNA (h) Lentiviral Particles: sc-91518-V.

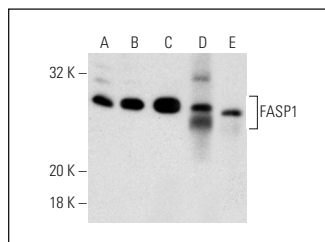
Molecular Weight of FASP1: 26 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HeLa nuclear extract: sc-2120 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

## 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.

## DATA



FASP1 (L-12): sc-83613. Western blot analysis of FASP1 expression in HeLa (A) and NTERA-2 (B) whole cell lysates, HeLa nuclear extract (C) and mouse brain (D) and mouse testis (E) tissue extracts.

## RESEARCH USE

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