

OIP5 (D-12): sc-160623

BACKGROUND

OIP5 (opa interacting protein 5), also known as LINT-25, CT86 (cancer/testis antigen 86) or MIS18 β , is a 229 amino acid nuclear protein that is required for chromosome segregation during mitosis. OIP5 exists as a homodimer but can also heterodimerize with FASP1 (FAPP1-associated protein 1). Essential for the recruitment of CENP-A (centromere autoantigen A) to centromeres, OIP5 localizes to centromeres of interphase cells during late anaphase and G1. The gene encoding OIP5 maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

REFERENCES

- Hurowitz, G.I., et al. 1993. Neuropsychiatric aspects of adult-onset Tay-Sachs disease: two case reports with several new findings. *J. Neuropsychiatry Clin. Neurosci.* 5: 30-36.
- Williams, J.M., et al. 1998. Using the yeast two-hybrid system to identify human epithelial cell proteins that bind gonococcal Opa proteins: intracellular gonococci bind pyruvate kinase via their Opa proteins and require host pyruvate for growth. *Mol. Microbiol.* 27: 171-186.
- Online Mendelian Inheritance in Man, OMIM[™]. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 606020. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Fujita, Y., et al. 2007. Priming of centromere for CENP-A recruitment by human hMis18 α , hMis18 β , and M18BP1. *Dev. Cell* 12: 17-30.
- Naetar, N., et al. 2007. LAP2 α -binding protein LINT-25 is a novel chromatin-associated protein involved in cell cycle exit. *J. Cell Sci.* 120: 737-747.
- Midla, G.S. 2008. Diagnosis and management of patients with Marfan syndrome. *JAAPA* 21: 21-25.
- Dan, B. 2009. Angelman syndrome: current understanding and research prospects. *Epilepsia* 50: 2331-2339.
- Ferrer-Bolufer, I., et al. 2009. Tyrosinemia type 1 and Angelman syndrome due to paternal uniparental isodisomy 15. *J. Inherit. Metab. Dis.* E-published.
- Wawrzik, M., et al. 2009. The C15orf2 gene in the Prader-Willi syndrome region is subject to genomic imprinting and positive selection. *Neurogenetics* 11: 153-161.

CHROMOSOMAL LOCATION

Genetic locus: OIP5 (human) mapping to 15q15.1.

SOURCE

OIP5 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of OIP5 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.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160623 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OIP5 (D-12) is recommended for detection of OIP5 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with OIP106 .

OIP5 (D-12) is also recommended for detection of OIP5 in additional species, including equine and bovine.

Suitable for use as control antibody for OIP5 siRNA (h): sc-89996, OIP5 shRNA Plasmid (h): sc-89996-SH and OIP5 shRNA (h) Lentiviral Particles: sc-89996-V.

Molecular Weight of OIP5: 25 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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