



CEP57 (L-16): sc-109231

BACKGROUND

CEP57 (centrosomal protein 57 kDa), also known as PIG8, TSP57 or Translokin, is a 500 amino acid protein that localizes to both the nucleus and the cytoplasm, specifically associating with microtubules at the centrosome. Expressed ubiquitously, CEP57 exists as a homodimer that functions to mediate the mitogenic activity and nuclear translocation of FGF-2, an internalized growth factor, thereby regulating FGF-2 signaling pathways. Additionally, CEP57 is thought to play a role in spermatogenesis, possibly via the indirect regulation of gene expression. Human CEP57 shares 88% sequence identity with its mouse and bovine orthologs, suggesting a highly conserved role between species. Multiple isoforms of CEP57 exist due to alternative splicing events.

REFERENCES

1. Nagase, T., Miyajima, N., Tanaka, A., Sazuka, T., Seki, N., Sato, S., Tabata, S., Ishikawa, K., Kawarabayasi, Y. and Kotani, H. 1995. Prediction of the coding sequences of unidentified human genes. III. The coding sequences of 40 new genes (KIAA0081-KIAA0120) deduced by analysis of cDNA clones from human cell line KG-1. *DNA Res.* 2: 37-43.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607951. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Bossard, C., Laurell, H., Van den Berghe, L., Meunier, S., Zanibellato, C. and Prats, H. 2003. Translokin is an intracellular mediator of FGF-2 trafficking. *Nat. Cell Biol.* 5: 433-439.
4. Kim, Y.S., Nakanishi, G., Oudes, A.J., Kim, K.H., Wang, H., Kilpatrick, D.L. and Jetten, A.M. 2004. Tsp57: a novel gene induced during a specific stage of spermatogenesis. *Biol. Reprod.* 70: 106-113.
5. Emanuele, M.J. and Stukenberg, P.T. 2007. *Xenopus* Cep57 is a novel kinetochore component involved in microtubule attachment. *Cell* 130: 893-905.
6. DeLuca, J.G. 2007. Spindle microtubules: getting attached at both ends. *Curr. Biol.* 17: 966-969.
7. Momotani, K., Khromov, A.S., Miyake, T., Stukenberg, P.T. and Somlyo, A.V. 2008. Cep57, a multidomain protein with unique microtubule and centrosomal localization domains. *Biochem. J.* 412: 265-273.

CHROMOSOMAL LOCATION

Genetic locus: CEP57 (human) mapping to 11q21; Cep57 (mouse) mapping to 9 A1.

SOURCE

CEP57 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CEP57 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-109231 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CEP57 (L-16) is recommended for detection of CEP57 of mouse, rat and 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 other CEP family members.

Suitable for use as control antibody for CEP57 siRNA (h): sc-96282, CEP57 siRNA (m): sc-142285, CEP57 shRNA Plasmid (h): sc-96282-SH, CEP57 shRNA Plasmid (m): sc-142285-SH, CEP57 shRNA (h) Lentiviral Particles: sc-96282-V and CEP57 shRNA (m) Lentiviral Particles: sc-142285-V.

Molecular Weight of CEP57: 57 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.

STORAGE

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

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.