

CIP4 (m): 293T Lysate: sc-119268

BACKGROUND

CIP4 (Cdc42-interacting protein 4), also known as TRIP10 (thyroid hormone receptor interactor 10), STOT, STP or HSTP, is a 601 amino acid protein that localizes to the cytoplasm and the cytoskeleton, as well as to the lysosome and the Golgi apparatus and contains one FCH domain, one SH3 domain and one REM repeat. Expressed in a variety of tissues, including kidney, brain, liver, lung, heart and pancreas, CIP4 is required for the Insulin-dependent translocation of Glut4 to the plasma membrane and is essential for the coordination of membrane tubulation with Actin cytoskeletal reorganization during endocytosis. CIP4 exists as multiple alternative spliced isoforms and is subject to post-translational tyrosine phosphorylation. Aberrant splicing events during CIP4 transcription are associated with the pathogenesis of renal cell carcinoma, suggesting a role for CIP4 in tumor transformation and metastasis.

REFERENCES

1. Lee, J.W., Choi, H.S., Gyuris, J., Brent, R. and Moore, D.D. 1995. Two classes of proteins dependent on either the presence or absence of thyroid hormone for interaction with the thyroid hormone receptor. *Mol. Endocrinol.* 9: 243-254.
2. Aspenström, P. 1997. A Cdc42 target protein with homology to the non-kinase domain of Fer has a potential role in regulating the Actin cytoskeleton. *Curr. Biol.* 7: 479-487.
3. Wang, L., Rudert, W.A., Grishin, A., Dombrosky-Ferlan, P., Sullivan, K., Deng, X., Whitcomb, D. and Corey, S. 2002. Identification and genetic analysis of human and mouse activated Cdc42 interacting protein-4 isoforms. *Biochem. Biophys. Res. Commun.* 293: 1426-1430.
4. Holbert, S., Dedeoglu, A., Humbert, S., Saudou, F., Ferrante, R.J. and Néri, C. 2003. Cdc42-interacting protein-4 binds to Huntingtin: neuropathologic and biological evidence for a role in Huntington's disease. *Proc. Natl. Acad. Sci. USA* 100: 2712-2717.
5. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 604504. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Larocca, M.C., Shanks, R.A., Tian, L., Nelson, D.L., Stewart, D.M. and Goldenring, J.R. 2004. AKAP 350 interaction with Cdc42 interacting protein 4 at the Golgi apparatus. *Mol. Biol. Cell.* 15: 2771-2781.
7. Tsuji, E., Tsuji, Y., Fujiwara, T., Ogata, S., Tsukamoto, K. and Saku, K. 2006. Splicing variant of Cdc42 interacting protein-4 disrupts β -catenin-mediated cell-cell adhesion: expression and function in renal cell carcinoma. *Biochem. Biophys. Res. Commun.* 339: 1083-1088.
8. Shimada, A., Niwa, H., Tsujita, K., Suetsugu, S., Nitta, K., Hanawa-Suetsugu, K., Akasaka, R., Nishino, Y., Toyama, M., Chen, L., Liu, Z.J., Wang, B.C., Yamamoto, M., Terada, T., Miyazawa, A., Tanaka, A., Sugano, S., Shirouzu, M., et al. 2007. Curved EFC/F-BAR-domain dimers are joined end to end into a filament for membrane invagination in endocytosis. *Cell* 129: 761-772.
9. Banerjee, P.P., Pandey, R., Zheng, R., Suhoski, M.M., Monaco-Shawver, L. and Orange, J.S. 2007. Cdc42-interacting protein-4 functionally links Actin and microtubule networks at the cytolytic NK cell immunological synapse. *J. Exp. Med.* 204: 2305-2320.

CHROMOSOMAL LOCATION

Genetic locus: Trip10 (mouse) mapping to 17 D.

PRODUCT

CIP4 (m): 293T Lysate represents a lysate of mouse CIP4 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

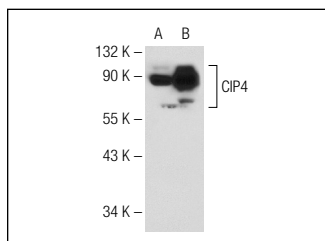
APPLICATIONS

CIP4 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CIP4 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CIP4 (21): sc-135868 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CIP4 expression in CIP4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



CIP4 (21): sc-135868. Western blot analysis of CIP4 expression in non-transfected: sc-117752 (A) and mouse CIP4 transfected: sc-119268 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.