

## CIP4 (G-2): sc-166809



The Power to Question

## 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 posttranslational 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., et al. 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., et al. 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., et al. 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., et al. 2004. AKAP 350 interaction with Cdc42 interacting protein 4 at the Golgi apparatus. *Mol. Biol. Cell* 15: 2771-2781.
7. Tsuji, E., et al. 2006. Splicing variant of Cdc42 interacting protein-4 disrupts  $\beta$ -catenin-mediated cell-cell adhesion: expression and function in renal cell carcinoma. *Biochem. Biophys. Res. Commun.* 339: 1083-1088.

## CHROMOSOMAL LOCATION

Genetic locus: TRIP10 (human) mapping to 19p13.3; Trip10 (mouse) mapping to 17 D.

## SOURCE

CIP4 (G-2) is a mouse monoclonal antibody raised against amino acids 467-558 mapping within an internal region of CIP4 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CIP4 (G-2) is recommended for detection of CIP4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for CIP4 siRNA (h): sc-72910, CIP4 siRNA (m): sc-72911, CIP4 shRNA Plasmid (h): sc-72910-SH, CIP4 shRNA Plasmid (m): sc-72911-SH, CIP4 shRNA (h) Lentiviral Particles: sc-72910-V and CIP4 shRNA (m) Lentiviral Particles: sc-72911-V.

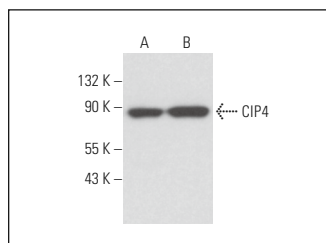
Molecular Weight of CIP4: 75 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, 3T3-L1 cell lysate: sc-2243 or CIP4 (h2): 293T Lysate: sc-173520.

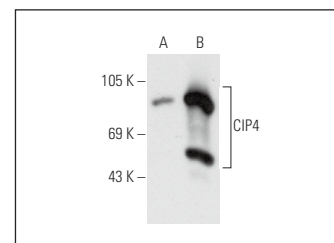
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



CIP4 (G-2): sc-166809. Western blot analysis of CIP4 expression in NIH/3T3 (A) and 3T3-L1 (B) whole cell lysates.



CIP4 (G-2): sc-166809. Western blot analysis of CIP4 expression in non-transfected (A) and human CIP4 transfected: sc-173520 (B) 293T whole cell lysates.

## 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](http://www.scbt.com) for detailed protocols and support products.