

Cortactin (H-191): sc-11408

BACKGROUND

Cortactin (also designated Ems-1) is a filamentous actin (F-actin) binding protein that has been shown to be a substrate for Src p60. Cortactin contains tandem 37 amino acid repeats at the amino-terminus and an SH3 domain at the carboxy-terminus. The tandem repeats appear to be necessary for F-actin binding. Tyrosine phosphorylation of Cortactin by Src p60 results in diminished F-actin binding to Cortactin and reduced F-actin cross-linking activity. Cortactin has also been shown to be phosphorylated in response to FGF-1. Cortactin exhibits abundant expression in megakaryocytes and platelets, and it may play a role in the maturation of megakaryocytes.

CHROMOSOMAL LOCATION

Genetic locus: CTTN (human) mapping to 11q13.3; Ctnn (mouse) mapping to 7 F5.

SOURCE

Cortactin (H-191) is a rabbit polyclonal antibody raised against amino acids 309-499 of Cortactin 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.

APPLICATIONS

Cortactin (H-191) is recommended for detection of cortactin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 Cortactin siRNA (h): sc-35093, Cortactin siRNA (m): sc-35094, Cortactin shRNA Plasmid (h): sc-35093-SH, Cortactin shRNA Plasmid (m): sc-35094-SH, Cortactin shRNA (h) Lentiviral Particles: sc-35093-V and Cortactin shRNA (m) Lentiviral Particles: sc-35094-V.

Molecular Weight of Cortactin: 80 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Cortactin (m): 293T Lysate: sc-126659 or PC-12 cell lysate: sc-2250.

STORAGE

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

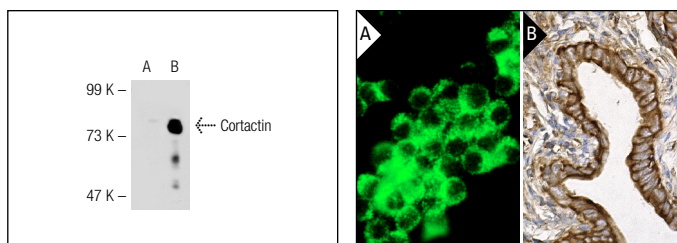
PROTOCOLS

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

RESEARCH USE

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

DATA



Cortactin (H-191): sc-11408. Western blot analysis of Cortactin expression in non-transfected: sc-117752 (A) and mouse Cortactin transfected: sc-126659 (B) 293T whole cell lysates.

Cortactin (H-191): sc-11408. Immunofluorescence staining of methanol-fixed PC-12 cells showing cytoskeletal localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoskeletal staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Hattan, D., et al. 2002. Tyrosine phosphorylation of Kv1.2 modulates its interaction with the actin-binding protein Cortactin. *J. Biol. Chem.* 277: 38596-38606.
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- Hiramoto-Yamaki, N., et al. 2010. Ephexin4 and EphA2 mediate cell migration through a RhoG-dependent mechanism. *J. Cell Biol.* 190: 461-477.
- Eiseler, T., et al. 2010. Protein kinase D controls actin polymerization and cell motility through phosphorylation of cortactin. *J. Biol. Chem.* 285: 18672-18683.
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- Ilatovskaya, D.V., et al. 2011. Cortical actin binding protein cortactin mediates ENaC activity via Arp2/3 complex. *FASEB J.* 25: 2688-2699.
- Yamada, S., et al. 2011. Overexpression of CRKII increases migration and invasive potential in oral squamous cell carcinoma. *Cancer Lett.* 303: 84-91.
- Kung, M.L., et al. 2012. Hepatoma-derived growth factor stimulates podosome rosettes formation in NIH/3T3 cells through the activation of phosphatidylinositol 3-kinase/Akt pathway. *Biochem. Biophys. Res. Commun.* 425: 169-176.



Try **Cortactin (H-5): sc-55579** or **Cortactin (A-4): sc-55578**, our highly recommended monoclonal alternatives to Cortactin (H-191). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Cortactin (H-5): sc-55579**.