

Cortactin (h): 293T Lysate: sc-177082

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.

REFERENCES

1. Wu, H., et al. 1993. Cortactin, an 80/85 kilodalton pp60Src substrate, is a filamentous Actin-binding protein enriched in the cell cortex. *J. Cell Biol.* 120: 1417-1426.
2. Zhan, X., et al. 1993. Murine cortactin is phosphorylated in response to fibroblast growth factor-1 on tyrosine residues late in the G₁ phase of the BALB/c 3T3 cell cycle. *J. Biol. Chem.* 268: 24427-24431.
3. Zhan, X., et al. 1994. Association of fibroblast growth factor receptor-1 with c-Src correlates with association between c-Src and Cortactin. *J. Biol. Chem.* 269: 20221-20224.
4. Okamura, H., et al. 1995. p80/85 Cortactin associates with the Src SH2 domain and colocalizes with v-Src in transformed cells. *J. Biol. Chem.* 270: 26613-26618.
5. Huang, C., et al. 1997. Down-regulation of the filamentous Actin cross-linking activity of Cortactin by Src-mediated tyrosine phosphorylation. *J. Biol. Chem.* 272: 13911-13915.
6. Zhan, X., et al. 1997. Upregulation of Cortactin expression during the maturation of megakaryocytes. *Blood* 89: 457-464.

CHROMOSOMAL LOCATION

Genetic locus: CTTN (human) mapping to 11q13.3.

PRODUCT

Cortactin (h): 293T Lysate represents a lysate of human Cortactin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Cortactin (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Cortactin antibodies. Recommended use: 10-20 µl per lane.

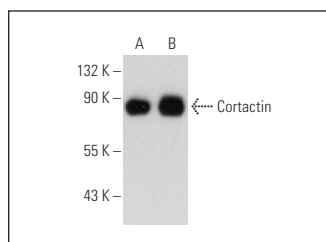
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Cortactin (H-5): sc-55579 is recommended as a positive control antibody for Western Blot analysis of enhanced human Cortactin expression in Cortactin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

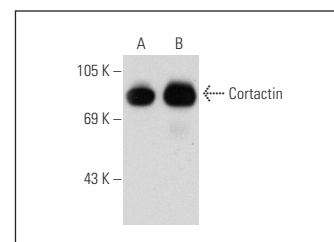
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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.

DATA



Cortactin (H-5): sc-55579. Western blot analysis of Cortactin expression in non-transfected: sc-117752 (A) and human Cortactin transfected: sc-177082 (B) 293T whole cell lysates.



Cortactin (A-4): sc-55578. Western blot analysis of Cortactin expression in non-transfected: sc-117752 (A) and human Cortactin transfected: sc-177082 (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.