

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Cortactin in ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 771716
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Cortactin Met1-Gly85 Accession # Q14247
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

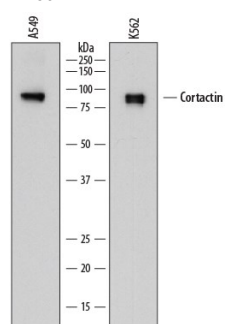
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>Knockout Validated</b>	Cortactin is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in Cortactin knockout HeLa cell line.	

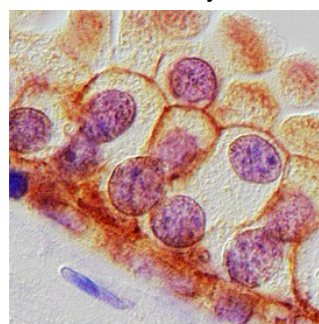
## DATA

### Western Blot



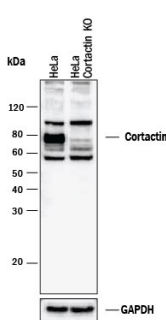
**Detection of Human Cortactin by Western Blot.** Western blot shows lysates of A549 human lung carcinoma cell line and K562 human chronic myelogenous leukemia cell line. PVDF membrane was probed with 0.1 µg/mL of Mouse Anti-Human Cortactin Monoclonal Antibody (Catalog # MAB6096) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). Specific bands were detected for Cortactin at approximately 80-85 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

### Immunohistochemistry



**Cortactin in Human Prostate.** Cortactin was detected in immersion fixed paraffin-embedded sections of human prostate using Mouse Anti-Human Cortactin Monoclonal Antibody (Catalog # MAB6096) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to the plasma membranes of glandular epithelial cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

### Knockout Validated



**Western Blot Shows Human Cortactin Specificity by Using Knockout Cell Line.** Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and TACE/ADAM17 knockout HeLa cell line (KO). PVDF membrane was probed with 0.2 µg/mL of Mouse Anti-Human Cortactin Monoclonal Antibody (Catalog # MAB6096) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Cortactin at approximately 80 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # MAB5718) is shown as a loading control. This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Cortactin (also EMS1 and Amplexin) is an 80-85 kDa multidomain scaffold-associated protein. It is an actin-binding cytoplasmic protein found at intercellular junctions and near lamellipodia. It is also found in tumor invadopodia, a somewhat analogous structure to lamellipodia. Here, Cortactin appears to coordinate actin assembly with MMP secretion, thus facilitating tumor invasiveness. Human Cortactin is 550 amino acids (aa) in length and contains six-plus Cortactin regions (aa 80-324) that regulate actin polymerization, and one SH3 domain (aa 496-548) that binds to N-WASP. Cortactin is highly phosphorylated on Tyr and Ser/Thr, and undergoes acetylation.