

Anti-acetyl Cortactin

Polyclonal Antibody

Cat. # 09-881

Lot # NG1722204

pack size: 100 µg

Store at 2-8°C

FOR RESEARCH USE ONLY



Certificate of Analysis

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Applications	Species Cross-Reactivity	Antibody Isotype	Epitope/Region	Host Species	Molecular Weight	Accession #
WB	H	N/A	Acetylated	Rb	85 kDa	NP_005222.2

Background

Cortactin is a cytoskeleton protein that facilitates assembly of cortical actin. Cortactin is widely expressed in most adherent cells and is a prominent substrate of protein-tyrosine kinase Src in vivo and in vitro. The protein sequence of cortactin contains multiple amino-terminal tandem repeats of a unique 37-amino acid sequence, which associates with actin, and a Src homology 3 domain at the carboxyl terminus.

Recent research efforts show cortactin is acetylated in vivo and is deacetylated by HDAC6 (Histone deacetylase 6). HDAC6 is a tubulin-specific deacetylase that regulates microtubule-dependent cell movement. In recent studies it was demonstrated that HDAC6 binds cortactin and alters the ability of cortactin to bind F-actin by modulating a "charge patch" in its repeat region. Findings suggest that, in addition to its role in microtubule-dependent cell motility, HDAC6 influences actin-dependent cell motility by altering the acetylation status of cortactin, which, in turn, changes the F-actin binding activity of cortactin. The acetylation level of cortactin may correlate to tumor metastases and acetylated cortactin may be considered a potential metastasis marker.

Presentation

Purified rabbit polyclonal in buffer containing 0.1 M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.05% sodium azide.

Concentration

1 mg/mL

Specificity

The antibody recognizes human acetylated Cortactin.

Species Cross-reactivity

Human and mouse. Predicted to react with rat and drosophila based on 100% sequence homology.

Immunogen

Consensus sequence motif of acetylation sites of cortactin.

Molecular Weight

~ 85 kDa

Method of Purification

Affinity purified

Storage and Handling

Stable for 1 year at 2-8°C from date of receipt.

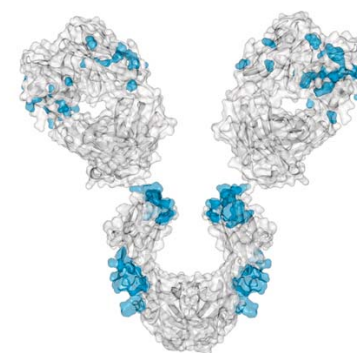
Control

HeLa-Anti-Cortactin immunocomplex treated with TSA/Nicotinamide

Quality Control Testing

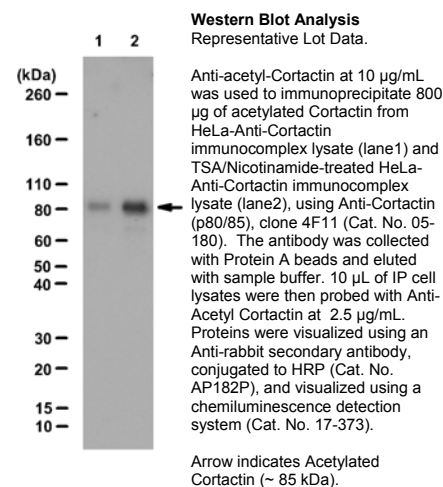
Evaluated by Western blot in HeLa-Anti-Cortactin immunocomplex, treated with TSA/Nicotinamide.

Western Blot Analysis: 2.5 µg/mL of the antibody detected acetyl-Cortactin on 10 µL of HeLa-Anti-Cortactin immunocomplex treated with TSA/Nicotinamide.



References

1. Zhang, Y., et al. (2009). *Oncogene*. 28:445-460.
2. Zhang, X., et al. (2007). *Mol. Cell*. 27(2):97-213.



APPLICATION LEGEND: WB Western Blotting IP Immunoprecipitation IC Immunocytochemistry IF Immunofluorescence
IH Immunohistochemistry (Tissue) IH(P) Immunohistochemistry (Paraffin) FC Flow Cytometry

SPECIES LEGEND: H Human M Mouse R Rat Rb Rabbit WR Most Common Vertebrates

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PROTOCOL**Western Blot**

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on cell lysate and transfer the proteins to a PVDF membrane. Wash the PVDF membrane twice with water.
2. Block the blotted PVDF membrane in freshly prepared 5% BSA or milk with 0.05% Tween®-20 for 1 hour at room temperature with constant agitation.
3. Incubate the PVDF with the recommended dilution of the primary antibody, diluted in freshly prepared 5% BSA or milk for 1 hour at room temperature or overnight with agitation at 2-8°C.
4. Wash the PVDF 3 times with TBST.
5. Incubate the PVDF in the secondary reagent of choice in 5% milk for 1 hour with agitation at room temperature.
6. Wash the PVDF 3-5 times with TBST.
7. Use Spray and Glow Catalog # 17-373 to visualize results. Use as directed.

RELATED PRODUCTS (specific)

cat #	description
05-180	■ Anti-Cortactin (p80/85), clone 4F11
AB3852	■ Anti-Cortactin, phospho-specific (Tyr421)
AB3795	■ Anti-Cortactin, phospho-specific [Tyr466]
AB3853	■ Anti-Cortactin, phospho-specific (Tyr486)
AB3887	■ Anti-Cortactin
16-228	■ Anti-Cortactin (p80/85), clone 4F11, Alexa Fluor® 488 conjugate
16-229	■ Anti-Cortactin (p80/85), clone 4F11, Alexa Fluor® 555 conjugate
07-732	■ Anti-HDAC6, CT

RELATED PRODUCTS (non-specific)

cat #	description
WBAVDBASE	■ SNAP i.d. Protein Detection System
WBAVDABTR	■ SNAP i.d. Antibody Collection Tray
WBAVDROLL	■ SNAP i.d. Blot Roller
WBAVDBH03	■ SNAP i.d. Triple Well Blot Holder
WBAVDBH01	■ SNAP i.d. Single Well Blot Holder
WBAVDBH02	■ SNAP i.d. Double Well Blot Holder
IPVH00010	■ Immobilon-P 26.5 cm x 3.75 m Roll PVDF 0.45 µm
IPFL00010	■ Immobilon-FL 26.5 cm x 3.75 m Roll PVDF 0.45 µm
IPVH07850	■ Immobilon-P 7 x 8.4 cm PVDF 0.45 mm (sheet) 50/pk
ISEQ00010	■ Immobilon-P SQ 26.5 cm x 3.75 m 1 roll PVDF 0.2 µm
ISEQ07850	■ Immobilon-P 7 x 8.4 cm PVDF 0.2 mm (sheet) 50/pk
IPFL07810	■ Immobilon-FL 7 x 8.4 cm PVDF 0.45 mm (sheet) 10/pk
WBKLS0100	■ Immobilon Western Chemilum HRP Substrate 100 mL
17-373	■ Spray & Glow™ ECL WB Detection System 1 ea
2060	■ Re-Blot Western Blot Recycling Kit
2500	■ Re-Blot Plus Western Blot Recycling Kit
B2080-175GM	■ Blot Quick Blocker Membrane Blocking Agent 175G

■ antibodies ■ Multiplex products ■ biotools ■ cell culture ■ enzymes ■ kits ■ proteins/peptides ■ siRNA/cDNA products

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