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CTTN Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13727c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q14247
Other Accession	Q01406, NP_005222.2
Reactivity	Human
Predicted	Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33698
Calculated MW	61586
Antigen Region	273-302

Additional Information

Gene ID	2017
Other Names	Src substrate cortactin, Amplaxin, Oncogene EMS1, CTTN, EMS1
Target/Specificity	This CTTN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 273-302 amino acids from the Central region of human CTTN.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CTTN Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CTTN
Synonyms	EMS1
Function	Contributes to the organization of the actin cytoskeleton and cell shape

(PubMed:21296879). Plays a role in the formation of lamellipodia and in cell migration. Plays a role in the regulation of neuron morphology, axon growth and formation of neuronal growth cones (By similarity). Through its interaction with CTTNBP2, involved in the regulation of neuronal spine density (By similarity). Plays a role in focal adhesion assembly and turnover (By similarity). In complex with ABL1 and MYLK regulates cortical actin-based cytoskeletal rearrangement critical to sphingosine 1-phosphate (S1P)-mediated endothelial cell (EC) barrier enhancement (PubMed:20861316). Plays a role in intracellular protein transport and endocytosis, and in modulating the levels of potassium channels present at the cell membrane (PubMed:17959782). Plays a role in receptor-mediated endocytosis via clathrin-coated pits (By similarity). Required for stabilization of KCNH1 channels at the cell membrane (PubMed:23144454). Plays a role in the invasiveness of cancer cells, and the formation of metastases (PubMed:16636290).

Cellular Location

Cytoplasm, cytoskeleton. Cell projection, lamellipodium. Cell projection, ruffle. Cell projection, dendrite. Cell projection {ECO:0000250|UniProtKB:Q66HL2}. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, podosome {ECO:0000250|UniProtKB:Q01406}. Cell junction {ECO:0000250|UniProtKB:Q66HL2}. Cell junction, focal adhesion {ECO:0000250|UniProtKB:Q66HL2}. Membrane, clathrin-coated pit {ECO:0000250|UniProtKB:Q66HL2}. Cell projection, dendritic spine. Cytoplasm, cell cortex Endoplasmic reticulum {ECO:0000250|UniProtKB:Q01406}. Note=Colocalizes transiently with PTK2/FAK1 at focal adhesions (By similarity) Associated with membrane ruffles and lamellipodia. In the presence of CTTNBP2NL, colocalizes with stress fibers (By similarity). In the presence of CTTNBP2, localizes at the cell cortex (By similarity). In response to neuronal activation by glutamate, redistributes from dendritic spines to the dendritic shaft (By similarity). Colocalizes with DNM2 at the basis of filopodia in hippocampus neuron growth zones (By similarity). {ECO:0000250|UniProtKB:Q60598, ECO:0000250|UniProtKB:Q66HL2}

Background

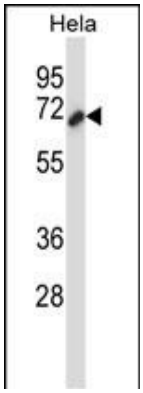
This gene is overexpressed in breast cancer and squamous cell carcinomas of the head and neck. The encoded protein is localized in the cytoplasm and in areas of the cell-substratum contacts. This gene has two roles: (1) regulating the interactions between components of adherens-type junctions and (2) organizing the cytoskeleton and cell adhesion structures of epithelia and carcinoma cells. During apoptosis, the encoded protein is degraded in a caspase-dependent manner. The aberrant regulation of this gene contributes to tumor cell invasion and metastasis. Three splice variants that encode different isoforms have been identified for this gene.

References

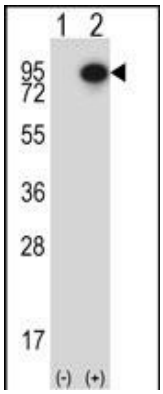
Croucher, D.R., et al. Mol. Cell. Biol. 30(21):5057-5070(2010)
Eiseler, T., et al. J. Biol. Chem. 285(24):18672-18683(2010)
Xu, X.Z., et al. Mod. Pathol. 23(2):187-196(2010)
Saitoh, Y., et al. Int. J. Oncol. 35(6):1277-1288(2009)
Hirakawa, H., et al. Int. J. Oncol. 35(6):1271-1276(2009)

Images

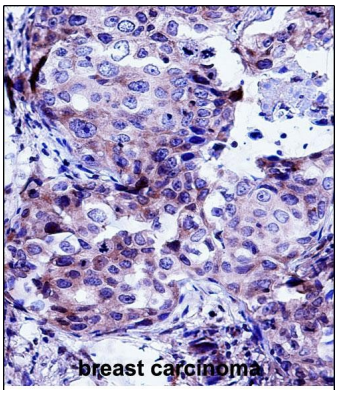
CTTN Antibody (Center) (Cat. #AP13727c) western blot



analysis in Hela cell line lysates (35ug/lane).This demonstrates the CTTN antibody detected the CTTN protein (arrow).



Western blot analysis of CTTN (arrow) using rabbit polyclonal CTTN Antibody (Center) (Cat. #AP13727c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CTTN gene.



CTTN Antibody (Center) (Cat. #AP13727c)immunohistochemistry analysis in formalin fixed and paraffin embedded human breast carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CTTN Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.