10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

WWC1 Antibody

Catalog # ASC11862

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q8IX03
Other Accession	NP_001155133, 242247251
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	125301
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	WWC1 antibody can be used for detection of WWC1 by Western blot at 1 - 2 g/ml. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	23286
Other Names	Protein KIBRA, HBeAg-binding protein 3, Kidney and brain protein, KIBRA, WW domain-containing protein 1, WWC1, KIAA0869
Target/Specificity	WWC1; WWC1 antibody is human, mouse and rat reactive. At least three isoforms of WWC1 are known to exist; this antibody will detect all three isoforms.
Reconstitution & Storage	WWC1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	WWC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	WWC1 (HGNC:29435)
Synonyms	KIAA0869, KIBRA
Function	Regulator of the Hippo signaling pathway, also known as the Salvador-Warts-Hippo (SWH) pathway (PubMed:24682284). Enhances phosphorylation of LATS1 and YAP1 and negatively regulates cell proliferation and organ growth due to a suppression of the transcriptional activity of YAP1, the major effector of the Hippo pathway (PubMed:24682284). Along with NF2 can synergistically induce the phosphorylation of LATS1 and LATS2 and function in the regulation of Hippo signaling pathway (PubMed:20159598).

	Acts as a transcriptional coactivator of ESR1 which plays an essential role in DYNLL1-mediated ESR1 transactivation (PubMed:16684779). Regulates collagen-stimulated activation of the ERK/MAPK cascade (PubMed:18190796). Modulates directional migration of podocytes (PubMed:18596123). Plays a role in cognition and memory performance (PubMed:18672031). Plays an important role in regulating AMPA-selective glutamate receptors (AMPARs) trafficking underlying synaptic plasticity and learning (By similarity).
Cellular Location	Cytoplasm, perinuclear region. Nucleus. Cell projection, ruffle membrane. Cytoplasm, cytosol. Note=Colocalizes with PRKCZ in the perinuclear region
Tissue Location	Expressed in mammary epithelial cells and breast cancer cell lines. Found in the luminal epithelium surrounding the ducts in the normal breast. In the brain, expressed in somatodendritic compartment of neurons in the cortex and hippocampus and in the cerebellum it is found in the Purkinje cells and some granule cells (at protein level). Detected in brain, heart, colon and kidney. In the kidney, expressed in glomerular podocytes, in some tubules and in the collecting duct.

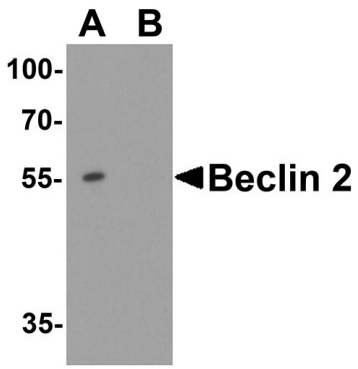
Background

The WW and C2 domain containing 1 (WWC1) protein, also known as KIBRA, possesses two WW domains and an internal C2-like domain (1). WWC1 was originally identified as a memory performance-associated protein in humans (2) and has recently been shown to be a novel regulator of the Hippo pathway (3). WWC1 is phosphorylated by the mitotic kinases Aurora-A and –B (4), and in turn activates the Aurora kinases and is required for precise chromosome alignment during mitosis (5).

References

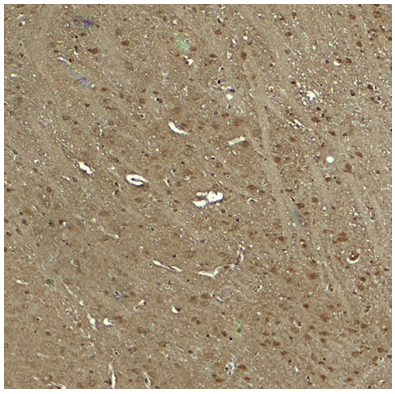
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Papassotiropoulos A, Stephan DA, Huentelman MJ, et al. Common Kibra alleles are associated with human memory performance. Science 2006; 314:475-8.
Genevet A, Wehr MC, Brain R, et al. Kibra is a regulator of the Salvador/Warts/Hippo signaling network. Dev. Cell 2010; 18:309-16.
Xiao L, Chen Y, Ji M, et al. KIBRA protein phosphorylation is regulated by mitotic kinase aurora and protein phosphatase 1. J. Biol. Chem. 2011; 286:36304-15.

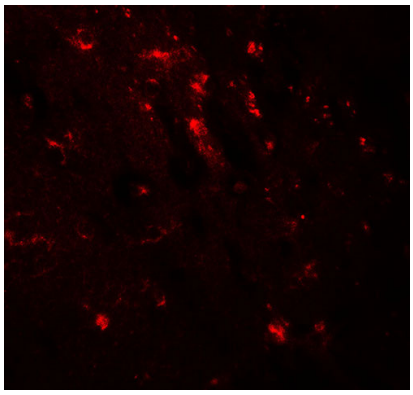
Images



Western blot analysis of WWC1 in human brain tissue lysate with WWC1 antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.

Immunohistochemistry of WWC1 in mouse brain tissue with WWC1 antibody at 5 µg/ml.





Immunofluorescence of WWC1 in mouse brain tissue with WWC1 antibody at 20 µg/ml.

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