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

Anti-CDK5RAP2 Antibody

Catalog # AP54033

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q96SN8
Reactivity	Human, Mouse, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	215038

Additional Information

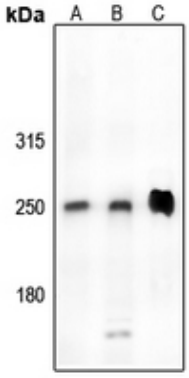
Gene ID	55755
Other Names	CEP215; KIAA1633; CDK5 regulatory subunit-associated protein 2; CDK5 activator-binding protein C48; Centrosome-associated protein 215
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human CDK5RAP2. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IHC~~1/50 - 1/200 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

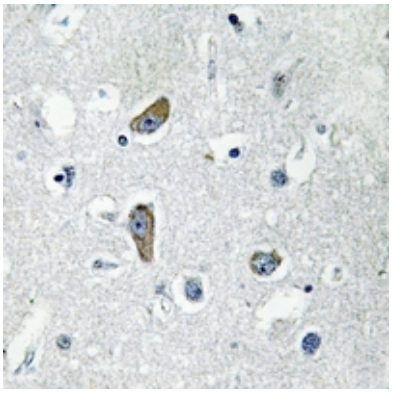
Name	CDK5RAP2
Synonyms	CEP215, KIAA1633
Function	Potential regulator of CDK5 activity via its interaction with CDK5R1 (PubMed:15164053). Negative regulator of centriole disengagement (licensing) which maintains centriole engagement and cohesion. Involved in regulation of mitotic spindle orientation (By similarity). Plays a role in the spindle checkpoint activation by acting as a transcriptional regulator of both BUBR1 and MAD2 promoter (PubMed:19282672). Together with EB1/MAPRE1, may promote microtubule polymerization, bundle formation, growth and dynamics at the plus ends (PubMed:18042621, PubMed:17959831, PubMed:19553473). Regulates centrosomal maturation by recruitment of the gamma-tubulin ring complex (gTuRC) onto centrosomes (PubMed:18042621, PubMed:17959831, PubMed:26485573, PubMed:39321809). In complex with PDE4DIP isoform 13/MMG8/SMYLE, MAPRE1 and AKAP9, contributes to microtubules nucleation and extension from the centrosome to the cell

	periphery (PubMed:29162697). Required for the recruitment of AKAP9 to centrosomes (PubMed:29162697). Plays a role in neurogenesis (By similarity).
Cellular Location	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Golgi apparatus. Cytoplasm. Cytoplasm, cytoskeleton. Note=Found in the pericentriolar region adhering to the surface of the centrosome and in the region of the centrosomal appendages. Localizes to microtubule plus ends in the presence of EB1/MAPRE1. Localization to centrosomes versus Golgi apparatus may be cell type-dependent. For instance, in SK-BR-3 and HEK293F cells, localizes to centrosomes but not to the Golgi apparatus (PubMed:29162697)
Tissue Location	Widely expressed. Expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas

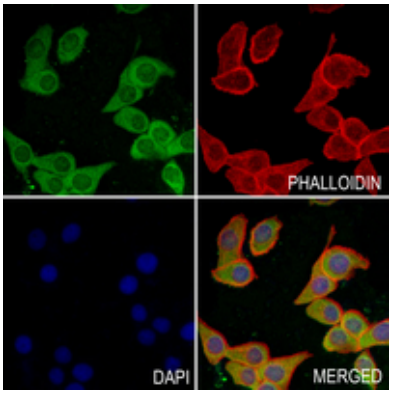
Images



Western blot analysis of CDK5RAP2 expression in Panc1 (A), Hela (B), mouse heart (C) whole cell lysates. (Predicted band size: 215 kD; Observed band size: 250 kD)

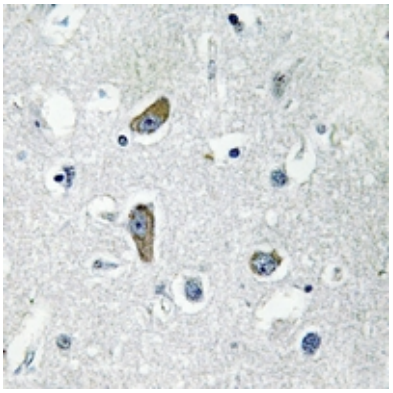


Immunohistochemical analysis of CDK5RAP2 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of CDK5RAP2 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Immunohistochemical analysis of CDK5RAP2 staining in human brain formalin fixed paraffin embedded tissue



section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.