

CPTC-YWHAB-1 (CAB080288)

Uniprot ID: [P31946](#)

Protein name: 1433B_HUMAN

Full name: 14-3-3 protein beta/alpha

Function: Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathways. Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif. Binding generally results in the modulation of the activity of the binding partner. Negative regulator of osteogenesis. Blocks the nuclear translocation of the phosphorylated form (by AKT1) of SRPK2 and antagonizes its stimulatory effect on cyclin D1 expression resulting in blockage of neuronal apoptosis elicited by SRPK2. Negative regulator of signaling cascades that mediate activation of MAP kinases via AKAP13.

Subcellular location:

Unnamed:

Cytoplasm (*experimental evidence*)

Melanosome (*experimental evidence*)

NOTE: Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Unnamed:

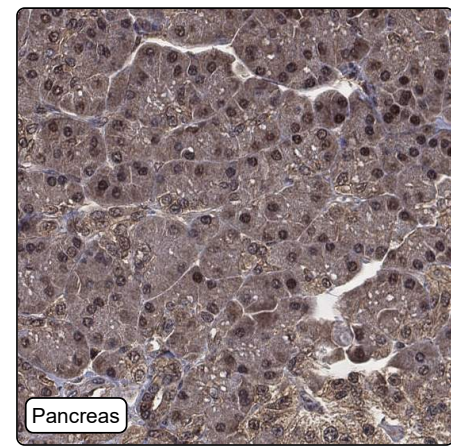
Vacuole membrane (*experimental evidence*)

NOTE: (Microbial infection) Upon infection with Chlamydia trachomatis, this protein is associated with the pathogen-containing vacuole membrane where it colocalizes with IncG.

Protein existence: Experimental evidence at protein level

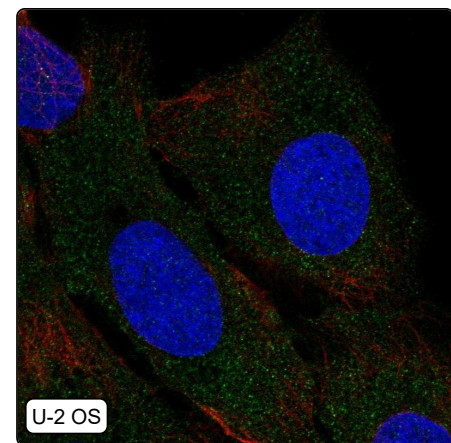
Comment:

Immunohistochemistry



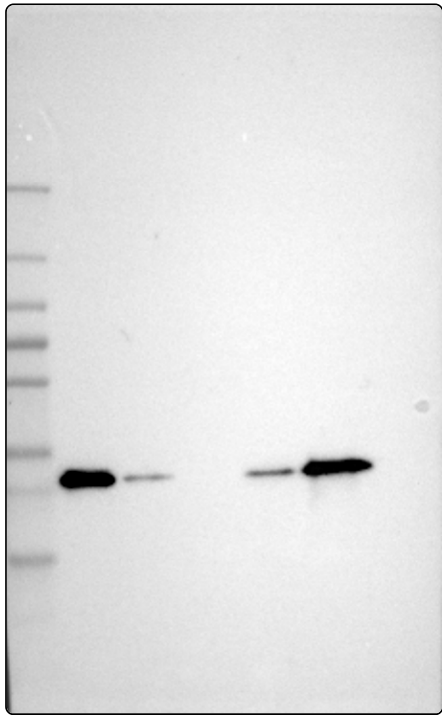
IHC protocol:	HIER pH6, Dilution 1:30000
IHC test staining:	Strong nuclear positivity in several tissues, stains endothelial cells and immune cells. Diffuse cytoplasmic staining in several tissues.
Literature conformance:	Not consistent with gene/protein characterization data
Literature significance:	
RNA similarity:	Very low consistency between antibody staining and RNA expression data
RNA tissue specificity:	Low tissue specificity
RNA tissue distribution:	Detected in all
IHC Sibling similarity:	Other antibody shows dissimilar IHC staining pattern
IHC fail comment:	ANTIBODY FAILED: Improbable subcellular location, Not consistent with RNA

Immunofluorescence



IF Overlay:	antibody (green), anti-tubulin (red) and DAPI (blue)
IF main location:	Cytosol - 1 [3]: Supportive (auto)
IF additional location:	
IF approved for publication on HPA:	Yes
IF in THP-1:	Cytosol
IF in U-2 OS:	Cytosol

Western blot



WB Size markers (kDa):	250, 130, 100, 70, 55, 35, 25, 15, 10
WB Lanes:	Marker (1), RT4 (2), U-251 MG (3), Plasma (4), Liver (5), Tonsil (6)
WB Target weight (kDa):	8, 12, 28, 28
WB Validation:	Supported (Single band corresponding to the predicted size in kDa (+/-20%.))