

CPTC-Ezrin-2 (CAB080198)

Uniprot ID: [P15311](#)

Protein name: EZRI_HUMAN

Full name: Ezrin

Tissue specificity: Expressed in cerebral cortex, basal ganglia, hippocampus, hypophysis, and optic nerve. Weakly expressed in brain stem and diencephalon. Stronger expression was detected in gray matter of frontal lobe compared to white matter (at protein level). Component of the microvilli of intestinal epithelial cells. Preferentially expressed in astrocytes of hippocampus, frontal cortex, thalamus, parahippocampal cortex, amygdala, insula, and corpus callosum. Not detected in neurons in most tissues studied.

Function: Probably involved in connections of major cytoskeletal structures to the plasma membrane. In epithelial cells, required for the formation of microvilli and membrane ruffles on the apical pole. Along with PLEKHG6, required for normal macropinocytosis.

Subcellular location:

Apical cell membrane (*experimental evidence*) (Topo: Peripheral membrane protein (*experimental evidence*); Orientation: Cytoplasmic side (*experimental evidence*))

Cell projection (*experimental evidence*)

Cell projection > Microvillus membrane (*experimental evidence*) (Topo: Peripheral membrane protein (*experimental evidence*); Orientation: Cytoplasmic side (*experimental evidence*))

Cell projection > Ruffle membrane (*experimental evidence*) (Topo: Peripheral membrane protein (*experimental evidence*); Orientation: Cytoplasmic side (*experimental evidence*))

Cytoplasm > Cell cortex (*experimental evidence*)

Cytoplasm > Cytoskeleton (*experimental evidence*)

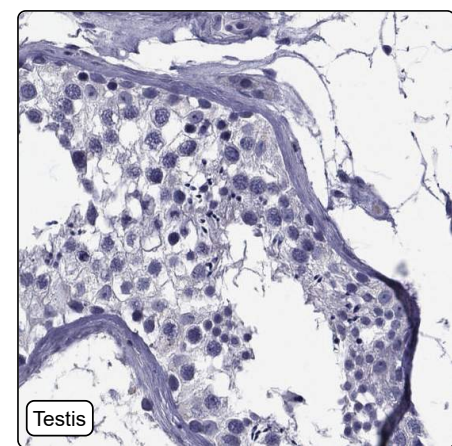
Cell projection > Microvillus (*by similarity*)

NOTE: Localization to the apical membrane of parietal cells depends on the interaction with PALS1. Localizes to cell extensions and peripheral processes of astrocytes (By similarity). Microvillar peripheral membrane protein (cytoplasmic side).

Protein existence: Experimental evidence at protein level

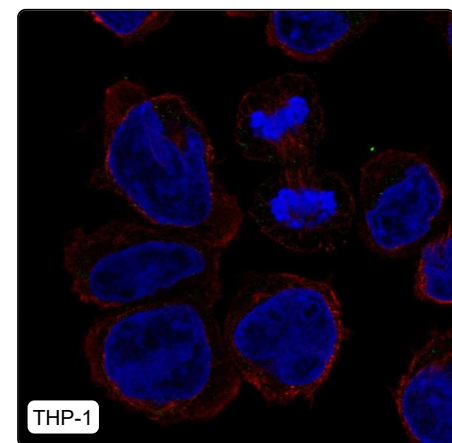
Comment:

Immunohistochemistry



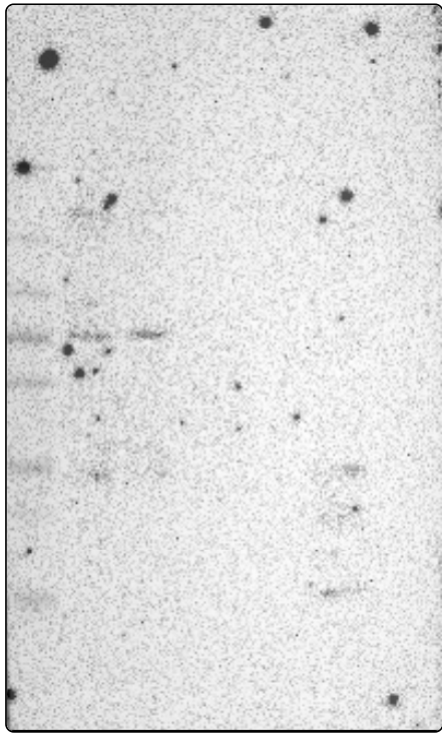
IHC protocol:	HIER pH6, Dilution 1:300
IHC test staining:	Negative in all tissues.
Literature conformance:	Not consistent with gene/protein characterization data
Literature significance:	
RNA similarity:	Very low consistency between antibody staining and RNA expression data
RNA tissue specificity:	Low tissue specificity
RNA tissue distribution:	Detected in all
IHC Sibling similarity:	Other antibody shows dissimilar IHC staining pattern
IHC fail comment:	ANTIBODY FAILED: Not consistent with RNA

Immunofluorescence



IF Overlay:	antibody (green), anti-tubulin (red) and DAPI (blue)
IF main location:	
IF additional location:	
IF approved for publication on HPA:	No
IF in THP-1:	Negative
IF in U-2 OS:	Negative

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):	69, 69, 69
WB Validation:	Supported (Single band corresponding to the predicted size in kDa (+/-20%.))