

CPTC-GPI-3 (CAB080078)

Uniprot ID: [P06744](#)

Protein name: G6PI_HUMAN

Full name: Glucose-6-phosphate isomerase

Function: In the cytoplasm, catalyzes the conversion of glucose-6-phosphate to fructose-6-phosphate, the second step in glycolysis, and the reverse reaction during gluconeogenesis (PubMed:28803808). Besides it's role as a glycolytic enzyme, also acts as a secreted cytokine: acts as an angiogenic factor (AMF) that stimulates endothelial cell motility (PubMed:11437381). Acts as a neurotrophic factor, neuroleukin, for spinal and sensory neurons (PubMed:3352745, PubMed:11004567). It is secreted by lectin-stimulated T-cells and induces immunoglobulin secretion (PubMed:3352745, PubMed:11004567).

Subcellular location:

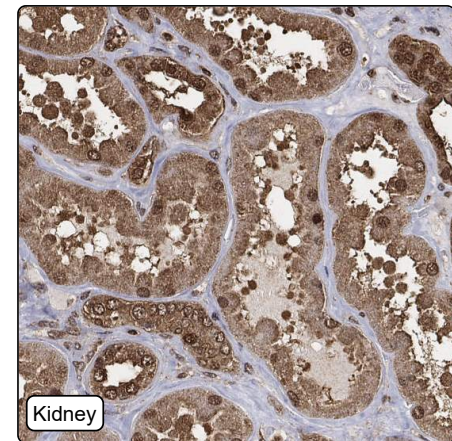
Cytoplasm (*experimental evidence*)

Secreted (*experimental evidence*)

Protein existence: Experimental evidence at protein level

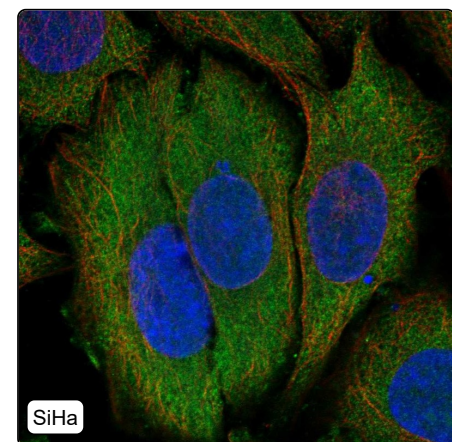
Comment:

Immunohistochemistry



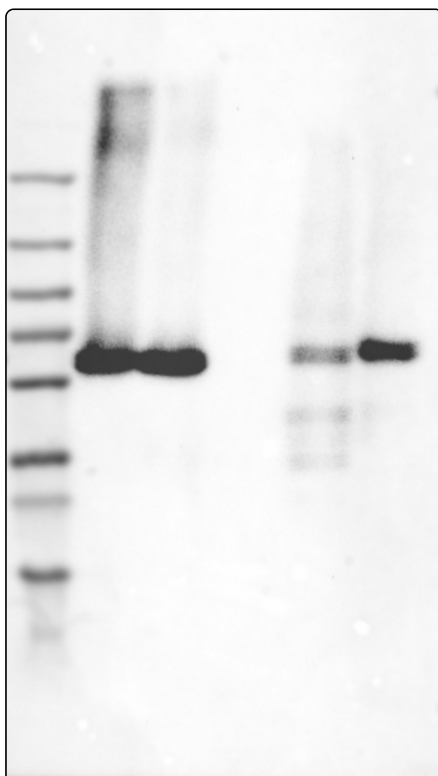
IHC protocol:	HIER pH6, Dilution 1:40000
IHC test staining:	Cytoplasmic and nuclear positivity in various tissues.
Literature conformance:	Not consistent with gene/protein characterization data
Literature significance:	
RNA similarity:	Low consistency between antibody staining and RNA expression data
RNA tissue specificity:	Low tissue specificity
RNA tissue distribution:	Detected in all
IHC Sibling similarity:	Other antibody shows dissimilar IHC staining pattern

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 SiHa:	Cytosol
IF in SK-MEL-30:	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):	13, 16, 17, 17, 18, 18, 19, 20, 50, 63, 64, 67
WB Validation:	Supported (Band of predicted size in kDa (+/-20%) with additional bands present.)