

# CPTC-GPI-1 (CAB080077)

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 its 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:**

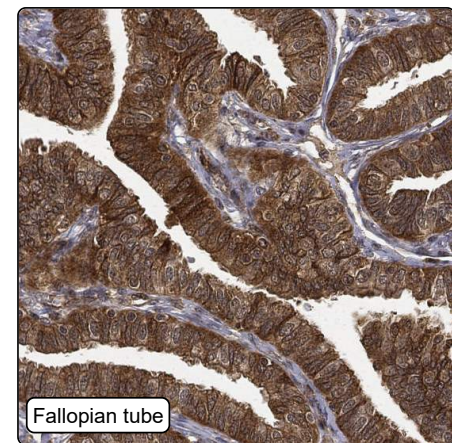
Cytoplasm (*experimental evidence*)

Secreted (*experimental evidence*)

**Protein existence:** Experimental evidence at protein level

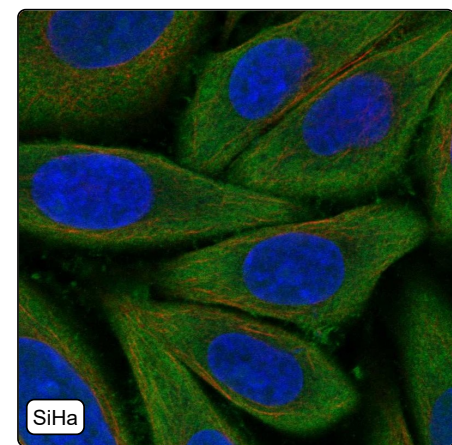
Comment:

## Immunohistochemistry



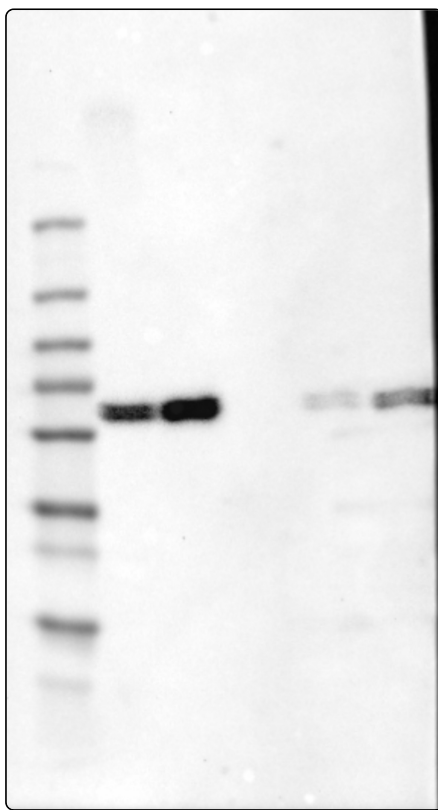
IHC protocol:	HIER pH6, Dilution 1:12000
IHC test staining:	General cytoplasmic positivity with additional nuclear staining in a few tissues.
Literature conformance:	Partly consistent with extensive gene/protein characterization data
Literature significance:	
RNA similarity:	Low consistency between antibody staining and RNA expression data
RNA tissue specificity:	Low tissue specificity
RNA tissue distribution:	Detected in all
IHC Sibling similarity:	Other antibody shows similar IHC staining pattern

## Immunofluorescence



IF Overlay:	antibody (green), anti-tubulin (red) and DAPI (blue)
IF main location:	Cytosol - 1 [3]: <b>Supportive</b> (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



<b>WB Size markers (kDa):</b>	250, 130, 100, 70, 55, 35, 25, 15, 10
<b>WB Lanes:</b>	Marker (1), RT4 (2), U-251 MG (3), Plasma (4), Liver (5), Tonsil (6)
<b>WB Target weight (kDa):</b>	13, 16, 17, 17, 18, 18, 19, 20, 50, 63, 64, 67
<b>WB Validation:</b>	Supported (Single band corresponding to the predicted size in kDa (+/-20%.))