

# CPTC-IFIT2-1 (CAB080339)

Uniprot ID: [P09913](#)

Protein name: IFIT2\_HUMAN

Full name: Interferon-induced protein with tetratricopeptide repeats 2

Function: IFN-induced antiviral protein which inhibits expression of viral messenger RNAs lacking 2'-O-methylation of the 5' cap. The ribose 2'-O-methylation would provide a molecular signature to distinguish between self and non-self mRNAs by the host during viral infection. Viruses evolved several ways to evade this restriction system such as encoding their own 2'-O-methylase for their mRNAs or by stealing host cap containing the 2'-O-methylation (cap snatching mechanism). Binds AU-rich viral RNAs, with or without 5' triphosphorylation, RNA-binding is required for antiviral activity. Can promote apoptosis.

Subcellular location:

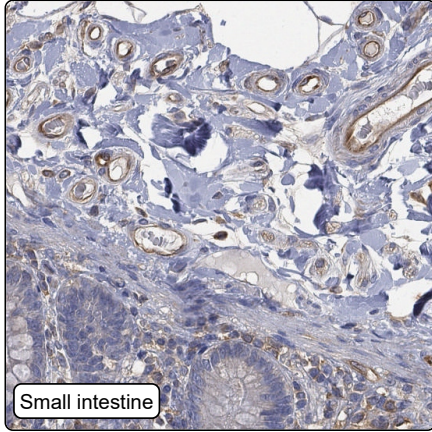
Cytoplasm (*experimental evidence*)

Endoplasmic reticulum (*experimental evidence*)

Protein existence: Experimental evidence at protein level

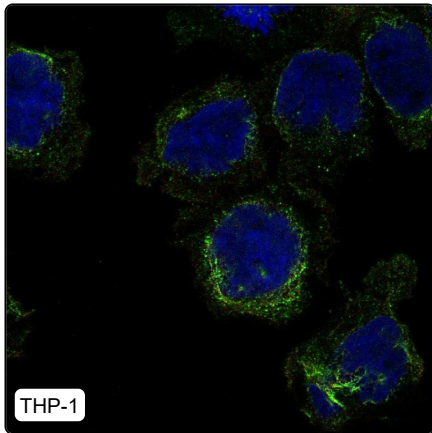
Comment:

## Immunohistochemistry



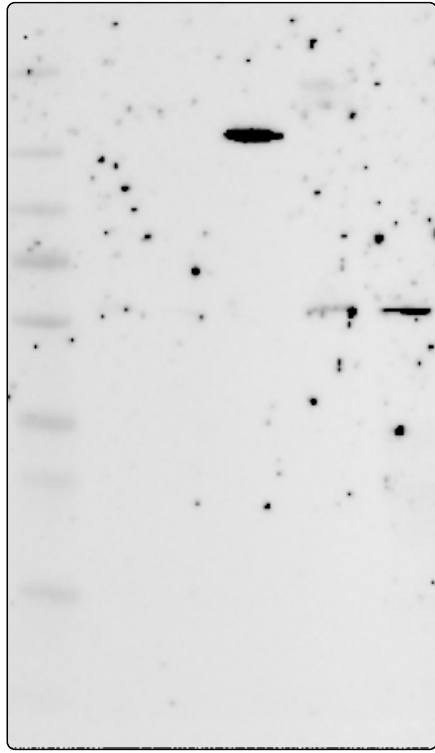
IHC protocol:	HIER pH6, Dilution 1:300
IHC test staining:	Cytoplasmic positivity in a few endothelial cells.
Literature conformance:	Not consistent with gene/protein characterization data
Literature significance:	
RNA similarity:	Very low consistency between antibody staining and RNA expression data
RNA tissue specificity:	Tissue enhanced (bone marrow)
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 - 3: <b>Supportive</b> (auto) Microtubules - 5: <b>Approved</b> (auto)
IF additional location:	
IF approved for publication on HPA:	No
IF in THP-1:	Csk(mt)
IF in U2OS:	Cytosol

# Western blot



<b>WB Size markers (kDa):</b>	250, 130, 100, 70, 55, 35, 25, 15, 10
<b>WB Lanes:</b>	Marker (1), RT-4 (2), U-251MG (3), Plasma (4), Liver (5), Tonsil (6)
<b>WB Target weight (kDa):</b>	17, 23, 52, 52, 52, 55, 55, 55, 55
<b>WB Validation:</b>	Supported (Band of predicted size in kDa (+/-20%) with additional bands present.)