

CPTC-TAP1-1 (CAB080006)

Uniprot ID: Q03518

Protein name: TAP1_HUMAN

Full name: Antigen peptide transporter 1

Function: Involved in the transport of antigens from the cytoplasm to the endoplasmic reticulum for association with MHC class I molecules. Also acts as a molecular scaffold for the final stage of MHC class I folding, namely the binding of peptide. Nascent MHC class I molecules associate with TAP via tapasin. Inhibited by the covalent attachment of herpes simplex virus ICP47 protein, which blocks the peptide-binding site of TAP. Inhibited by human cytomegalovirus US6 glycoprotein, which binds to the luminal side of the TAP complex and inhibits peptide translocation by specifically blocking ATP-binding to TAP1 and prevents the conformational rearrangement of TAP induced by peptide binding. Inhibited by human adenovirus E3-19K glycoprotein, which binds the TAP complex and acts as a tapasin inhibitor, preventing MHC class I/TAP association. Expression of TAP1 is down-regulated by human Epstein-Barr virus vIL-10 protein, thereby affecting the transport of peptides into the endoplasmic reticulum and subsequent peptide loading by MHC class I molecules.

Subcellular location:

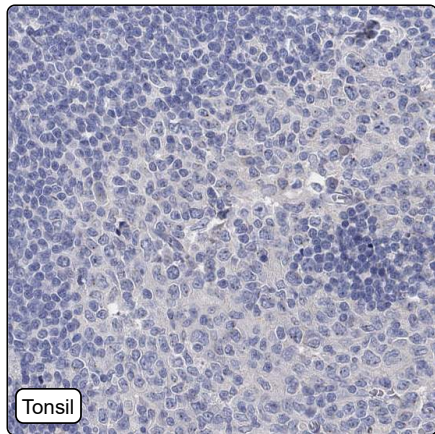
Endoplasmic reticulum membrane (Topo: Multi-pass membrane protein)

NOTE: The transmembrane segments seem to form a pore in the membrane.

Protein existence: Experimental evidence at protein level

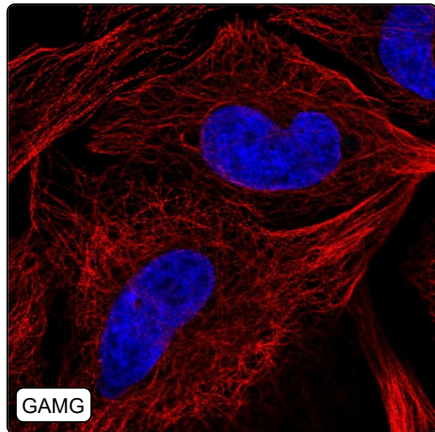
Comment:

Immunohistochemistry



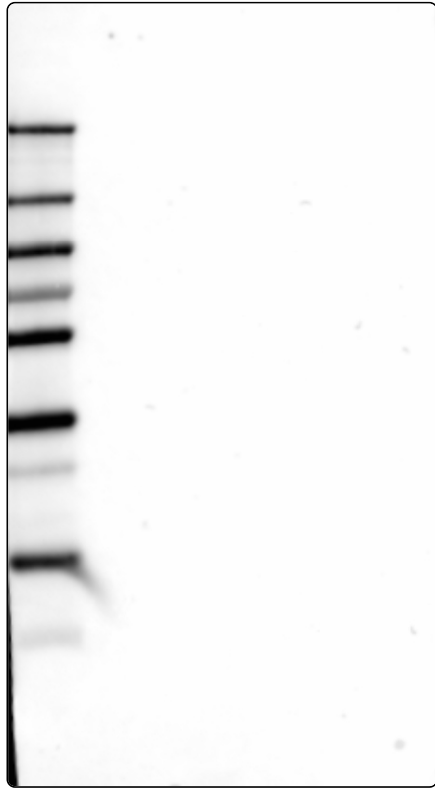
IHC protocol:	HIER pH6, Dilution 1:250
IHC test staining:	Negative in all tissues.
Literature conformance:	Not consistent with gene/protein characterization data
Literature significance:	
RNA consistency:	Not consistent with RNA expression data
IHC Sibling similarity:	Other antibody shows dissimilar IHC staining pattern
IHC fail comment:	ANTIBODY FAILED: Negative

Immunofluorescence



IF Overlay:	antibody (green), anti-tubuline (red) and DAPI (blue)
IF main location:	
IF additional location:	
IF Antibody score:	Failed IF
IF in GAMG:	Negative
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):	35, 87
WB Validation:	Uncertain (No bands detected.)