

CPTC-CD74-1 (CAB079994)

Uniprot ID: [P04233](#)

Protein name: HG2A_HUMAN

Full name: HLA class II histocompatibility antigen gamma chain

Function: Plays a critical role in MHC class II antigen processing by stabilizing peptide-free class II alpha/beta heterodimers in a complex soon after their synthesis and directing transport of the complex from the endoplasmic reticulum to the endosomal/lysosomal system where the antigen processing and binding of antigenic peptides to MHC class II takes place. Serves as cell surface receptor for the cytokine MIF. [Class-II-associated invariant chain peptide]: Binds to the peptide-binding site of MHC class II alpha/beta heterodimers forming an alpha-beta-CLIP complex, thereby preventing the loading of antigenic peptides to the MHC class II complex until its release by HLA-DM in the endosome.

Subcellular location:

Cell membrane (*curator inference*) (Topo: Single-pass type II membrane protein (*curator inference*))

Endoplasmic reticulum membrane

Golgi apparatus > Trans-Golgi network

Endosome

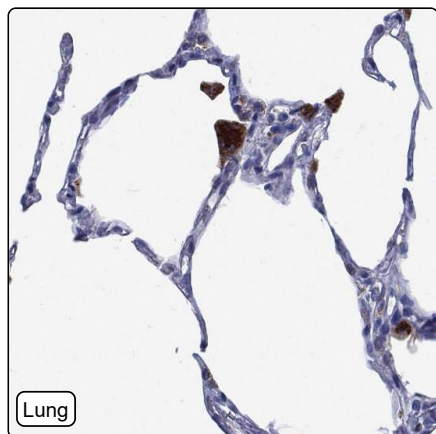
Lysosome

NOTE: Transits through a number of intracellular compartments in the endocytic pathway. It can either undergo proteolysis or reach the cell membrane.

Protein existence: Experimental evidence at protein level

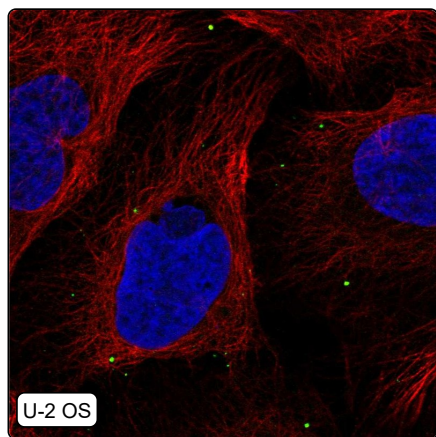
Comment: ICC-IF: We will try to get a good staining of this antibody in two more cell lines, before publication on the HPA. /Ulrika Axelsson

Immunohistochemistry



IHC protocol:	HIER pH6, Dilution 1:375
IHC test staining:	Cytoplasmic and membranous positivity in macrophages and immune cells in several tissues.
Literature conformance:	Consistent with gene/protein characterization data
Literature significance:	Limited
RNA consistency:	Mainly not consistent with RNA expression data
IHC Sibling similarity:	Other antibody shows similar IHC staining pattern

Immunofluorescence



IF Overlay:	antibody (green), anti-tubuline (red) and DAPI (blue)
IF main location:	Vesicles - 3: Supportive (manual)
IF additional location:	
IF Antibody score:	Supportive
IF in REH:	Negative
IF in THP-1:	Negative
IF in U-2 OS:	Vesicles

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):	17, 18, 26, 34, 35
WB Validation:	Uncertain (No bands detected.)