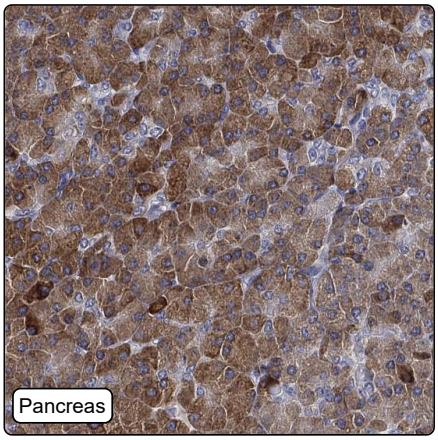
CPTC-CD274-1 (CAB079981)

Uniprot ID: Q9NZQ7
Protein name: PD1L1_HUMAN
Full name: Programmed cell death 1 ligand 1
Tissue specificity: Highly expressed in the heart, skeletal muscle, placenta and lung. Weakly expressed in the thymus, spleen, kidney and liver. Expressed on activated T- and B-cells, dendritic cells, keratinocytes and monocytes.
Function: Plays a critical role in induction and maintenance of immune tolerance to self (PubMed:11015443, PubMed:28813417, PubMed:28813410). As a ligand for the inhibitory receptor PDCD1/PD-1, modulates the activation threshold of T-cells and limits T-cell effector response (PubMed:11015443, PubMed:28813417, PubMed:28813410). Through a yet unknown activating receptor, may costimulate T-cell subsets that predominantly produce interleukin-10 (IL10) (PubMed:10581077). The PDCD1-mediated inhibitory pathway is exploited by tumors to attenuate anti-tumor immunity and escape destruction by the immune system, thereby facilitating tumor survival (PubMed:28813417, PubMed:28813410). The interaction with PDCD1/PD-1 inhibits cytotoxic T lymphocytes (CTLs) effector function (By similarity). The blockage of the PDCD1-mediated pathway results in the reversal of the exhausted T-cell phenotype and the normalization of the anti-tumor response, providing a rationale for cancer immunotherapy (By similarity).
Subcellular location:
Unnamed:
Cell membrane (*experimental evidence*) (Topo: Single-pass type I membrane protein (*match to sequence model*))
Early endosome membrane (*experimental evidence*) (Topo: Single-pass type I membrane protein (*match to sequence model*))
Recycling endosome membrane (*experimental evidence*) (Topo: Single-pass type I membrane protein (*match to sequence model*))
NOTE: Associates with CMTM6 at recycling endosomes, where it is protected from being targeted for lysosomal degradation.
Isoform 1:
Cell membrane (*experimental evidence*) (Topo: Single-pass type I membrane protein (*match to sequence model*))
Isoform 2:
Endomembrane system (*experimental evidence*) (Topo: Single-pass type I membrane protein (*match to sequence model*))
Protein existence: Experimental evidence at protein level

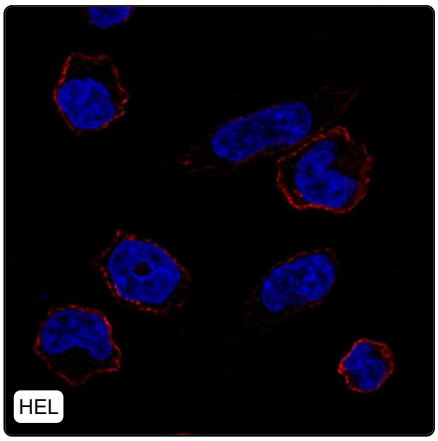
Comment:

Immunohistochemistry



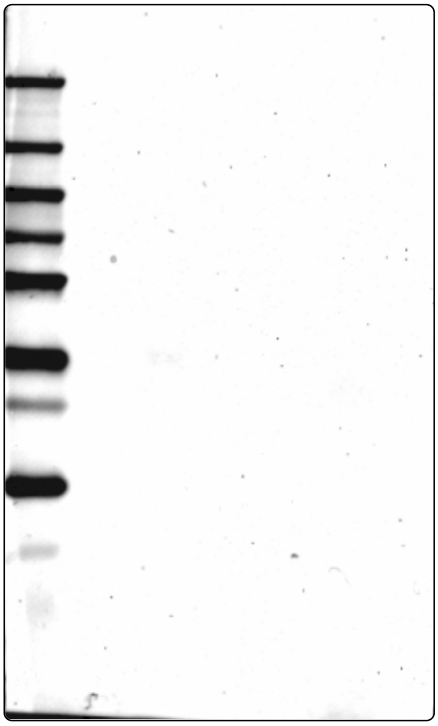
IHC protocol:	HIER pH6, Dilution 1:250
IHC test staining:	Weak to moderate cytoplasmic positivity in gastrointestinal tract and pancreas.
Literature conformance:	Not consistent with gene/protein characterization data
Literature significance:	
RNA consistency:	Not consistent with RNA expression data
IHC Sibling similarity:	Other antibody shows dissimilar IHC staining pattern
IHC fail comment:	ANTIBODY FAILED: Improbable histological location,Not consistent with RNA

Immunofluorescence



IF Overlay:	antibody (green), anti-tubuline (red) and DAPI (blue)
IF main location:	
IF additional location:	
IF Antibody score:	Failed IF
IF in HEL:	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):	20, 33
WB Validation:	Uncertain (Single band differing more than +/-20% from predicted size in kDa and not supported by experimental and/or bioinformatic data.)