

CPTC-SIGLEC7-1 (CAB080396)

Uniprot ID: Q9Y286

Protein name: SIGL7_HUMAN

Full name: Sialic acid-binding Ig-like lectin 7

Tissue specificity: Predominantly expressed by resting and activated natural killer cells and at lower levels by granulocytes and monocytes. High expression found in placenta, liver, lung, spleen, and peripheral blood leukocytes.

Function: Putative adhesion molecule that mediates sialic-acid dependent binding to cells. Preferentially binds to alpha-2,3- and alpha-2,6-linked sialic acid. Also binds disialogangliosides (disialogalactosyl globoside, disialyl lactotetraosylceramide and disialyl GalNAc lactotetraosylceramide). The sialic acid recognition site may be masked by cis interactions with sialic acids on the same cell surface. In the immune response, may act as an inhibitory receptor upon ligand induced tyrosine phosphorylation by recruiting cytoplasmic phosphatase(s) via their SH2 domain(s) that block signal transduction through dephosphorylation of signaling molecules. Mediates inhibition of natural killer cells cytotoxicity. May play a role in hemopoiesis. Inhibits differentiation of CD34+ cell precursors towards myelomonocytic cell lineage and proliferation of leukemic myeloid cells (in vitro).

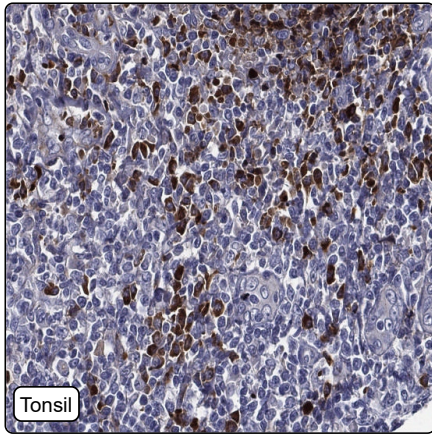
Subcellular location:

Membrane (Topo: Single-pass type I membrane protein)

Protein existence: Experimental evidence at protein level

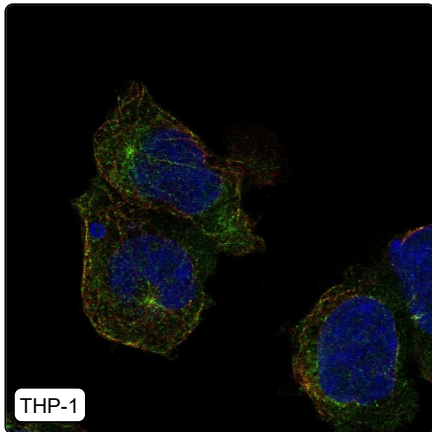
Comment:

Immunohistochemistry



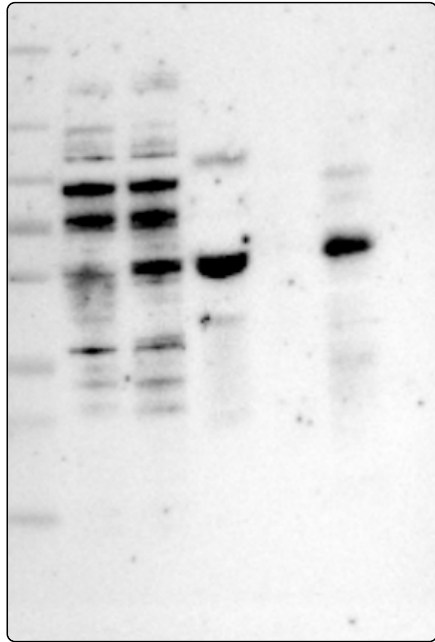
IHC protocol:	HIER pH6, Dilution 1:500
IHC test staining:	Cytoplasmic positivity in immune cells.
Literature conformance:	Partly consistent with extensive gene/protein characterization data
Literature significance:	
RNA similarity:	Low consistency between antibody staining and RNA expression data
RNA tissue specificity:	Tissue enhanced (lymphoid tissue)
RNA tissue distribution:	Detected in many
IHC Sibling similarity:	

Immunofluorescence



IF Overlay:	antibody (green), anti-tubulin (red) and DAPI (blue)
IF main location:	Microtubules - 8: Approved (auto) Centriolar satellite - 8: Approved (auto)
IF additional location:	
IF approved for publication on HPA:	No
IF in THP-1:	Csk(mt) Centriolar satellites
IF in U2OS:	Negative

Western blot



WB Size markers (kDa):	250, 130, 100, 70, 55, 35, 25, 15, 10
WB Lanes:	Marker (1), RT-4 (2), U-251MG (3), Plasma (4), Liver (5), Tonsil (6)
WB Target weight (kDa):	17, 21, 41, 51
WB Validation:	Supported (Band of predicted size in kDa (+/-20%) with additional bands present.)