

# CPTC-CXCL10-1 (CAB079993)

**Uniprot ID:** P02778

**Protein name:** CXCL10\_HUMAN

**Full name:** C-X-C motif chemokine 10

**Tissue specificity:** Mainly secreted by monocytes, endothelial cells as well as fibroblasts. Expressed by epithelial cells in thymus (PubMed:11157474). Microglial cells produce CXCL10 in response to viral stimulation (PubMed:12663757).

**Function:** Pro-inflammatory cytokine that is involved in a wide variety of processes such as chemotaxis, differentiation, and activation of peripheral immune cells, regulation of cell growth, apoptosis and modulation of angiostatic effects (PubMed:7540647, PubMed:11157474, PubMed:22652417). Plays thereby an important role during viral infections by stimulating the activation and migration of immune cells to the infected sites (By similarity). Mechanistically, binding of CXCL10 to the CXCR3 receptor activates G protein-mediated signaling and results in downstream activation of phospholipase C-dependent pathway, an increase in intracellular calcium production and actin reorganization (PubMed:12750173, PubMed:19151743). In turn, recruitment of activated Th1 lymphocytes occurs at sites of inflammation (PubMed:12750173, PubMed:12663757). Activation of the CXCL10/CXCR3 axis plays also an important role in neurons in response to brain injury for activating microglia, the resident macrophage population of the central nervous system, and directing them to the lesion site. This recruitment is an essential element for neuronal reorganization (By similarity).

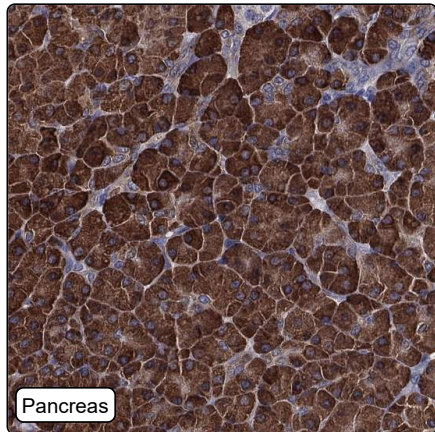
**Subcellular location:**

Secreted (*experimental evidence*)

**Protein existence:** Experimental evidence at protein level

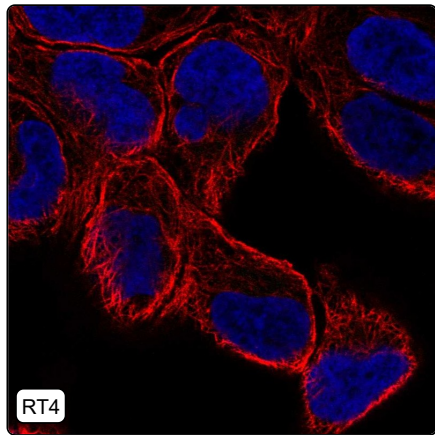
**Comment:**

## Immunohistochemistry



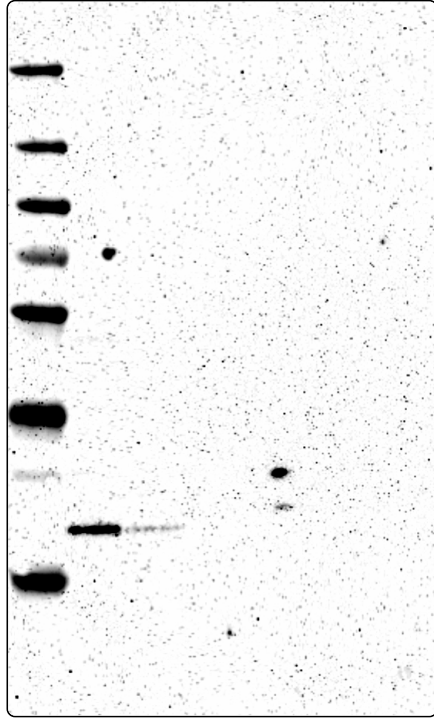
<b>IHC protocol:</b>	HIER pH6, Dilution 1:10000
<b>IHC test staining:</b>	Cytoplasmic positivity in pancreas and glandular cells in gastrointestinal tract.
<b>Literature conformance:</b>	Not consistent with gene/protein characterization data
<b>Literature significance:</b>	
<b>RNA consistency:</b>	Not consistent with RNA expression data
<b>IHC Sibling similarity:</b>	Not applicable
<b>IHC fail comment:</b>	ANTIBODY FAILED: Improbable histological location,Not consistent with RNA

## Immunofluorescence



<b>IF Overlay:</b>	antibody (green), anti-tubuline (red) and DAPI (blue)
<b>IF main location:</b>	
<b>IF additional location:</b>	
<b>IF Antibody score:</b>	Failed IF
<b>IF in RT4:</b>	Negative
<b>IF in THP-1:</b>	Negative
<b>IF in U-2 OS:</b>	Negative

# Western blot



<b>WB Size markers (kDa):</b>	250, 130, 100, 70, 55, 35, 25, 15, 10
<b>WB Lanes:</b>	Marker (1), RT4 (2), U-251 MG (3), Plasma (4), Liver (5), Tonsil (6)
<b>WB Target weight (kDa):</b>	11
<b>WB Validation:</b>	Uncertain (Single band differing more than +/-20% from predicted size in kDa and not supported by experimental and/or bioinformatic data.)