

# CPTC-CD14-1 (CAB079988)

**Uniprot ID:** P08571

**Protein name:** CD14\_HUMAN

**Full name:** Monocyte differentiation antigen CD14

**Tissue specificity:** Detected on macrophages (at protein level) (PubMed:1698311). Expressed strongly on the surface of monocytes and weakly on the surface of granulocytes; also expressed by most tissue macrophages.

**Function:** Coreceptor for bacterial lipopolysaccharide (PubMed:1698311, PubMed:23264655). In concert with LBP, binds to monomeric lipopolysaccharide and delivers it to the LY96/TLR4 complex, thereby mediating the innate immune response to bacterial lipopolysaccharide (LPS) (PubMed:20133493, PubMed:23264655). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:8612135). Acts as a coreceptor for TLR2:TLR6 heterodimer in response to diacylated lipopeptides and for TLR2:TLR1 heterodimer in response to triacylated lipopeptides, these clusters trigger signaling from the cell surface and subsequently are targeted to the Golgi in a lipid-raft dependent pathway (PubMed:16880211). Binds electronegative LDL (LDL(-)) and mediates the cytokine release induced by LDL(-) (PubMed:23880187).

**Subcellular location:**

Cell membrane (*experimental evidence*) (Topo: Lipid-anchor,GPI-anchor (*experimental evidence*))

Secreted (*experimental evidence*)

Membrane raft (*experimental evidence*)

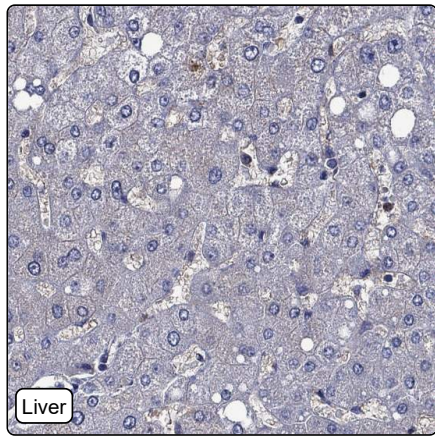
Golgi apparatus (*experimental evidence*)

**NOTE:** Secreted forms may arise by cleavage of the GPI anchor.

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

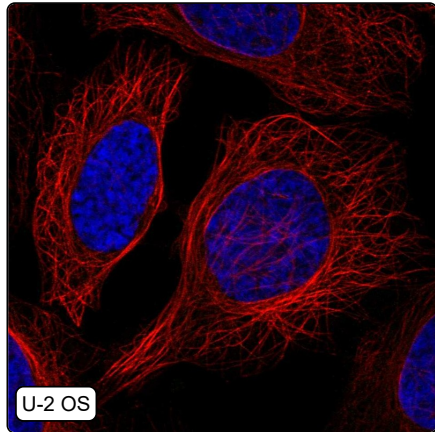
**Comment:**

## Immunohistochemistry



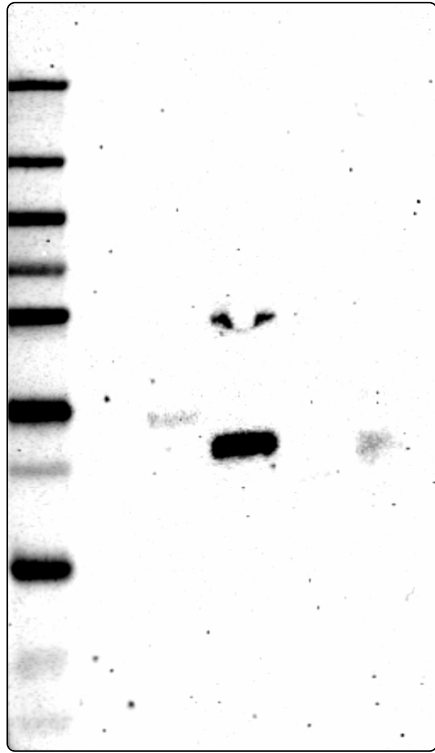
<b>IHC protocol:</b>	HIER pH6, Dilution 1:250
<b>IHC test staining:</b>	Positivity in a subset of immune cells in various tissues.
<b>Literature conformance:</b>	Partly consistent with extensive gene/protein characterization data
<b>Literature significance:</b>	
<b>RNA consistency:</b>	Not consistent with RNA expression data
<b>IHC Sibling similarity:</b>	Other antibody shows partly similar IHC staining pattern
<b>IHC fail comment:</b>	ANTIBODY FAILED: 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 A549:</b>	Negative
<b>IF in CACO-2:</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>	6, 9, 23, 40, 40
<b>WB Validation:</b>	Uncertain (Weak band of predicted size but with additional bands of higher intensity also present.)