

# Anti-CD284 Antibody

Rabbit polyclonal antibody to CD284

Catalog # AP59719

## Product Information

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Application	WB, IP
Primary Accession	<a href="#">O00206</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	95680

## Additional Information

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Gene ID	7099
Other Names	Toll-like receptor 4; hToll; CD284
Target/Specificity	Recognizes endogenous levels of CD284 protein.
Dilution	WB~~WB (1/500 - 1/1000), IP (1/10 - 1/100) IP~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

## Protein Information

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Name	TLR4
Function	<p>Transmembrane receptor that functions as a pattern recognition receptor recognizing pathogen- and damage-associated molecular patterns (PAMPs and DAMPs) to induce innate immune responses via downstream signaling pathways (PubMed:<a href="#">10835634</a>, PubMed:<a href="#">15809303</a>, PubMed:<a href="#">16622205</a>, PubMed:<a href="#">17292937</a>, PubMed:<a href="#">17478729</a>, PubMed:<a href="#">20037584</a>, PubMed:<a href="#">20711192</a>, PubMed:<a href="#">23880187</a>, PubMed:<a href="#">27022195</a>, PubMed:<a href="#">29038465</a>, PubMed:<a href="#">17803912</a>). At the plasma membrane, cooperates with LY96 to mediate the innate immune response to bacterial lipopolysaccharide (LPS) (PubMed:<a href="#">27022195</a>). Also involved in LPS-independent inflammatory responses triggered by free fatty acids, such as palmitate, and Ni(2+) (PubMed:<a href="#">20711192</a>). Mechanistically, acts via MYD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:<a href="#">10835634</a>, PubMed:<a href="#">21393102</a>, PubMed:<a href="#">27022195</a>, PubMed:<a href="#">36945827</a>, PubMed:<a href="#">9237759</a>). Alternatively, CD14- mediated TLR4 internalization via endocytosis is associated with the initiation of a MYD88-independent signaling via the TICAM1-TBK1-IRF3 axis</p>

leading to type I interferon production (PubMed:[14517278](#)). In addition to the secretion of proinflammatory cytokines, initiates the activation of NLRP3 inflammasome and formation of a positive feedback loop between autophagy and NF-kappa-B signaling cascade (PubMed:[32894580](#)). In complex with TLR6, promotes inflammation in monocytes/macrophages by associating with TLR6 and the receptor CD86 (PubMed:[23880187](#)). Upon ligand binding, such as oxLDL or amyloid-beta 42, the TLR4:TLR6 complex is internalized and triggers inflammatory response, leading to NF-kappa-B-dependent production of CXCL1, CXCL2 and CCL9 cytokines, via MYD88 signaling pathway, and CCL5 cytokine, via TICAM1 signaling pathway (PubMed:[23880187](#)). In myeloid dendritic cells, vesicular stomatitis virus glycoprotein G but not LPS promotes the activation of IRF7, leading to type I IFN production in a CD14- dependent manner (PubMed:[15265881](#), PubMed:[23880187](#)). Required for the migration-promoting effects of ZG16B/PAUF on pancreatic cancer cells.

#### Cellular Location

Cell membrane; Single-pass type I membrane protein. Early endosome. Cell projection, ruffle {ECO:0000250|UniProtKB:Q9QUK6}. Note=Upon complex formation with CD36 and TLR6, internalized through dynamin-dependent endocytosis (PubMed:20037584). Colocalizes with RFTN1 at cell membrane and then together with RFTN1 moves to endosomes, upon lipopolysaccharide stimulation. Co-localizes with ZG16B/PAUF at the cell membrane of pancreatic cancer cells (PubMed:36232715)

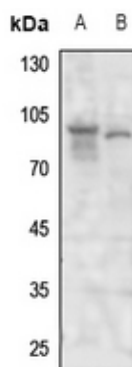
#### Tissue Location

Highly expressed in placenta, spleen and peripheral blood leukocytes (PubMed:9237759, PubMed:9435236). Detected in monocytes, macrophages, dendritic cells and several types of T-cells (PubMed:27022195, PubMed:9237759). Expressed in pancreatic cancer cells but not in normal pancreatic cells (at protein level) (PubMed:36232715).

## Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CD284. The exact sequence is proprietary.

## Images



Western blot analysis of CD284 expression in HEK293T (A), HeLa (B) whole cell lysates.

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