

# Goat anti-TLR4 / CD284 Antibody

Peptide-affinity purified goat antibody  
Catalog # AF4536a

## Product Information

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<b>Application</b>	IHC, IF, FC, Pep-ELISA
<b>Primary Accession</b>	<a href="#">O00206</a>
<b>Other Accession</b>	<a href="#">NP_612564.1</a>
<b>Reactivity</b>	Human, Mouse, Rat, Pig, Dog, Sheep, Bovine
<b>Host</b>	Goat
<b>Clonality</b>	Polyclonal
<b>Clone Names</b>	TLR4
<b>Calculated MW</b>	95680

## Additional Information

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<b>Gene ID</b>	7099
<b>Other Names</b>	TLR4; toll-like receptor 4; ARMD10; CD284; TOLL; hToll; OTTHUMP00000022807; homolog of Drosophila toll
<b>Dilution</b>	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50 Pep-ELISA~~N/A
<b>Format</b>	Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	Goat anti-TLR4 / CD284 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	TLR4
<b>Function</b>	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> , PubMed: <a href="#">15852007</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:[20711192](#)). Mechanistically, acts via MYD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:[10835634](#), PubMed:[21393102](#), PubMed:[27022195](#), PubMed:[36945827](#), PubMed:[9237759](#)). Alternatively, CD14-mediated TLR4 internalization via endocytosis is associated with the initiation of a MYD88-independent signaling via the TICAM1-TBK1-IRF3 axis 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.

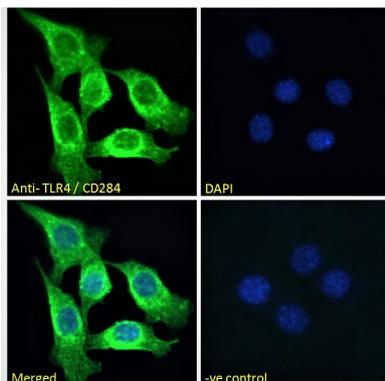
### Cellular Location

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

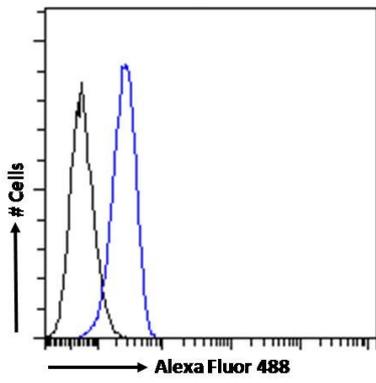
Highly expressed in placenta, spleen and peripheral blood leukocytes (PubMed:9237759, PubMed:9435236). Detected in monocytes, macrophages, dendritic cells and several types of T-cells (PubMed:27022195, PubMed:9237759). Expressed in pancreatic cancer cells but not in normal pancreatic cells (at protein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

### Images



EB09441 Immunofluorescence analysis of paraformaldehyde fixed NIH3T3 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing Golgi/ER and cytoplasmic staining. The nuclear s

EB09441 Flow cytometric analysis of paraformaldehyde fixed U937 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line) fol



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