10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TLR6 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1506A

Product Information

Application	FC, WB, IHC-P, E
Primary Accession	Q9Y2C9
Reactivity	Human
Predicted	Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB02409
Calculated MW	91880
Antigen Region	393-423

Additional Information

Gene ID	10333
Other Names	Toll-like receptor 6, CD286, TLR6
Target/Specificity	This TLR6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 393-423 amino acids from the C-terminal region of human TLR6.
Dilution	FC~~1:10~50 WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TLR6 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TLR6
Function	Participates in the innate immune response to Gram-positive bacteria and fungi. Specifically recognizes diacylated and, to a lesser extent, triacylated lipopeptides (PubMed:20037584). In response to diacylated lipopeptides,

	forms the activation cluster TLR2:TLR6:CD14:CD36, this cluster triggers signaling from the cell surface and subsequently is targeted to the Golgi in a lipid-raft dependent pathway (PubMed:16880211). Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Recognizes mycoplasmal macrophage-activating lipopeptide-2kD (MALP-2), soluble tuberculosis factor (STF), phenol-soluble modulin (PSM) and B.burgdorferi outer surface protein A lipoprotein (OspA-L) cooperatively with TLR2 (PubMed:11441107). In complex with TLR4, promotes sterile inflammation in monocytes/macrophages in response to oxidized low-density lipoprotein (oxLDL) or amyloid-beta 42. In this context, the initial signal is provided by oxLDL- or amyloid-beta 42- binding to CD36. This event induces the formation of a heterodimer of TLR4 and TLR6, which is rapidly internalized and triggers inflammatory response, leading to the NF-kappa-B-dependent production of CXCL1, CXCL2 and CCL9 cytokines, via MYD88 signaling pathway, and CCL5 cytokine, via TICAM1 signaling pathway, as well as IL1B secretion (PubMed:11441107, PubMed:20037584).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:Q9EPW9}; Single-pass type I membrane protein. Membrane raft. Golgi apparatus. Note=Upon complex formation with CD36 and TLR4, internalized through dynamin-dependent endocytosis. Does not reside in lipid rafts before stimulation but accumulates increasingly in the raft upon the presence of the microbial ligand. In response to diacylated lipoproteins, TLR2:TLR6 heterodimers are recruited in lipid rafts, this recruitment determine the intracellular targeting to the Golgi apparatus (PubMed:16880211).
Tissue Location	Detected in monocytes, CD11c+ immature dendritic cells, plasmacytoid pre-dendritic cells and dermal microvessel endothelial cells

Background

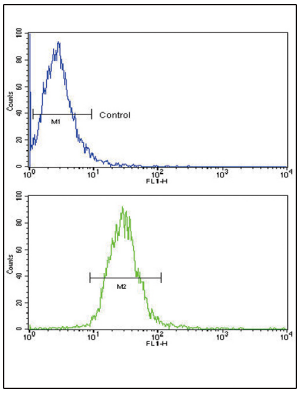
TLR6, a Type I membrane protein that belongs to the Toll-like rceptor family, participates in the innate immune response to Gram-positive bacteria and fungi. It acts via MyD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. The protein recognizes mycoplasmal macrophage-activating lipopeptide-2kD (MALP-2), soluble tuberculosis factor (STF), phenol-soluble modulin (PSM) and B.burgdorferi outer surface protein A lipoprotein (OspA-L) cooperatively with TLR2. It binds to TLR2 via their respective extracellular domains, and to MyD88 via their respective TIR domains. TLR6 is detected in monocytes, CD11c+ immature dendritic cells, plasmacytoid pre-dendritic cells and dermal microvessel endothelial cells.

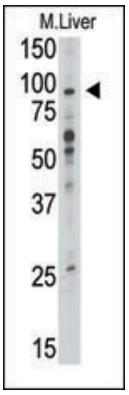
References

Bulut, Y., et al., J. Immunol. 167(2):987-994 (2001).
Takeuchi, O., et al., Gene 231 (1-2), 59-65 (1999).

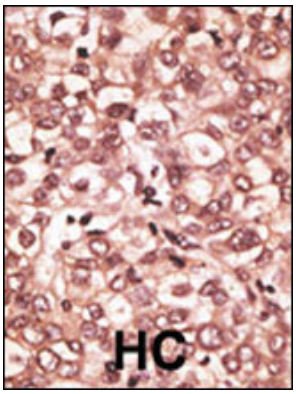
Images

Flow cytometric analysis of NCI-H460 cells using TLR6 Antibody (C-term) (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

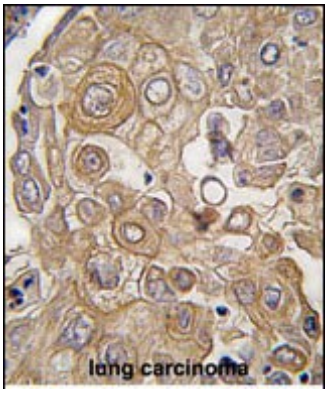




Western blot analysis of anti-TLR6 Pab (Cat. #AP1506a) in mouse liver tissue lysate (35ug/lane). TLR6(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with TLR6 antibody (C-term) (Cat.#AP1506a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- Migration ability and Toll-like receptor expression of human mesenchymal stem cells improves significantly after three-dimensional culture.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.