

# TLR8 Antibody

Catalog # ASC10231

## Product Information

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<b>Application</b>	E, IHC-P
<b>Primary Accession</b>	<a href="#">Q9NR97</a>
<b>Other Accession</b>	<a href="#">NP_619542</a> , <a href="#">20302168</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	119828
<b>Concentration (mg/ml)</b>	1 mg/mL
<b>Conjugate</b>	Unconjugated
<b>Application Notes</b>	TLR8 antibody can be used for detection of TLR8 by immunohistochemistry at 5 µg/mL.

## Additional Information

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<b>Gene ID</b>	51311
<b>Other Names</b>	TLR8 Antibody: CD288, Toll-like receptor 8, toll-like receptor 8
<b>Target/Specificity</b>	TLR8; At least three isoforms of TLR8 are known to exist. TLR8 antibody is predicted to not cross-react with other TLR protein family members
<b>Reconstitution &amp; Storage</b>	TLR8 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
<b>Precautions</b>	TLR8 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	TLR8 ( <a href="#">HGNC:15632</a> )
<b>Function</b>	Endosomal receptor that plays a key role in innate and adaptive immunity (PubMed: <a href="#">25297876</a> , PubMed: <a href="#">32433612</a> ). Controls host immune response against pathogens through recognition of RNA degradation products specific to microorganisms that are initially processed by RNASET2 (PubMed: <a href="#">31778653</a> ). Recognizes GU-rich single- stranded RNA (GU-rich RNA) derived from SARS-CoV-2, SARS-CoV-1 and HIV- 1 viruses (PubMed: <a href="#">33718825</a> ). Upon binding to agonists, undergoes dimerization that brings TIR domains from the two molecules into direct contact, leading to the recruitment of TIR-containing downstream adapter MYD88 through homotypic interaction (PubMed: <a href="#">23520111</a> , PubMed: <a href="#">25599397</a> , PubMed: <a href="#">26929371</a> ,

PubMed:[33718825](#)). In turn, the Myddosome signaling complex is formed involving IRAK4, IRAK1, TRAF6, TRAF3 leading to activation of downstream transcription factors NF- kappa-B and IRF7 to induce pro-inflammatory cytokines and interferons, respectively (PubMed:[16737960](#), PubMed:[17932028](#), PubMed:[29155428](#)).

**Cellular Location**

Endosome membrane; Single-pass type I membrane protein.  
Note=Endosomal localization confers distinctive proteolytic processing

**Tissue Location**

Expressed in myeloid dendritic cells, monocytes, and monocyte-derived dendritic cells.

## Background

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**TLR8 Antibody:** Toll-like receptors (TLRs) are signaling molecules that recognize different microbial products during infection and serve as an important link between the innate and adaptive immune responses. These proteins act through adaptor molecules such as MyD88 and TIRAP to activate various kinases and transcription factors. Like TLR7, TLR8 is localized to endosomal or lysosomal compartments and stimulates the innate immune response after activation by guanosine- and uridine-rich single-stranded RNA. Human but not murine TLR8 confers responsiveness to the antiviral compound R-848.

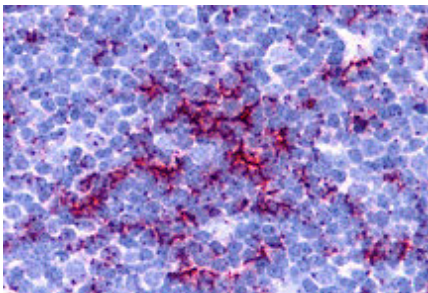
## References

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Vogel SN, Fitzgerald KA, and Fenton MJ. TLRs: differential adapter utilization by toll-like receptors mediates TLR-specific patterns of gene expression. *Mol. Interv.* 2003; 3:466-77  
Takeda K, Kaisho T, and Akira S. Toll-like receptors. *Annu. Rev. Immunol.* 2003; 21:335-76  
Janeway CA Jr. and Medzhitov R. Innate immune recognition. *Annu. Rev. Immunol.* 2002; 20:197-216.  
O'Neill LAJ, Fitzgerald FA, and Bowie AG. The Toll-IL-1 receptor adaptor family grows to five members. *Trends in Imm.* 2003; 24:286-9.

## Images

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Immunohistochemistry of TLR8 in human thymus tissue with TLR8 antibody at 5 µg/mL.

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