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

TLR8 Antibody
Catalog # ASC10231

Specification

TLR8 Antibody - Product Information

Application	**IHC-P, E**
Primary Accession	Q9NR97
Other Accession	NP_619542, 20302168
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**TLR8 antibody can be used for detection of TLR8 by immunohistochemistry at 5 µg/mL.**

TLR8 Antibody - Additional Information

Gene ID **51311**

Other Names
TLR8 Antibody: CD288, Toll-like receptor 8, toll-like receptor 8

Target/Specificity
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

Reconstitution & Storage
TLR8 antibody can be stored at 4℃ for three months and -20℃, 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.

Precautions
TLR8 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TLR8 Antibody - Protein Information

Name TLR8 (HGNC:15632)

Function
Endosomal receptor that plays a key role in innate and adaptive immunity (PubMed:25297876, PubMed:32433612). Controls host immune response against pathogens through recognition of RNA degradation products specific to microorganisms that are initially processed by RNASET2 (PubMed:31778653). Recognizes GU-rich single- stranded RNA (GU-rich RNA) derived from SARS-CoV-2, SARS-CoV-1 and HIV- 1 viruses (PubMed:33718825). 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:23520111, PubMed:25599397, PubMed:26929371, 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

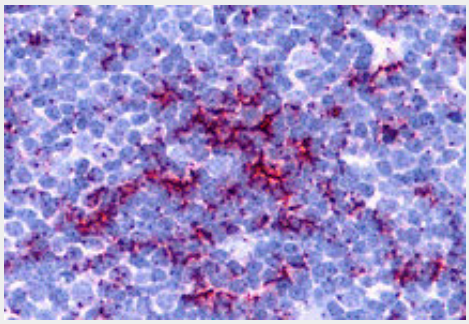
Tissue Location
Expressed in myeloid dendritic cells, monocytes, and monocyte-derived dendritic cells.

TLR8 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TLR8 Antibody - Images



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

TLR8 Antibody - Background

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.

TLR8 Antibody - References

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.