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TLR8 Rabbit pAb

Catalog # AP96287

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9NR97
Other Accession	Q9NR97
Reactivity	Rat, Human, Mouse
Predicted	Pig, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	119828
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TLR 8
Epitope Specificity	451-550/1041
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane.
SIMILARITY	Belongs to the Toll-like receptor family. Contains 23 LRR (leucine-rich) repeats. Contains 1 LRRCT domain.
SUBUNIT	Interacts with MYD88 via their respective TIR domains. Interacts with UNC93B1 (By similarity). Interacts with BTK.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The Toll-like Receptors (TLR) are a family of human receptors that share homology with the Drosophila Toll Receptors, which are involved in mediating dorsoventral polarization in developing Drosophila embryos and participate in host immunity. The TLR family members are characterized by a highly conserved Toll homology (TH) domain, which is essential for Toll-induced signal transductions. TLRs are type I transmembrane receptors that contain an extracellular domain consisting of several leucine-rich regions and a single cytoplasmic Toll/IL-1R like domain. Three TLR family members, TLR7, TLR8 and TLR9, belong to a subfamily of TLRs which are differentially expressed. TLR7 is expressed in lung, placenta and spleen. TLR8 is expressed in lung and peripheral blood leukocytes, and TLR9 is predominantly expressed in spleen, lymph nodes, bone marrow and peripheral blood leukocytes. TLR7, TLR8 and TLR9 stimulate the NFkB signaling pathway, suggesting that they play a role in the immune response.

Additional Information

Gene ID	51311
Other Names	CD288; IMD98; TLR-8; hTLR8; TLR8_HUMAN; TLR8; TLR8_MOUSE; toll like receptor 8; toll-like receptor 8

Target/Specificity	Detected in brain, heart, lung, liver, placenta, in monocytes, and at lower levels in CD11c+ immature dendritic cells.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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.

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