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Anti-Toll-like Receptor 7 Antibody

Mouse Anti Human Monoclonal Antibody
Catalog # AP53404

Product Information

Primary Accession	Q9NYK1
Other Accession	NM_016562
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Immunogen	Purified recombinant human Toll-like Receptor protein fragments expressed in E.coli.
Purification	Affinity purified
Calculated MW	120922

Additional Information

Gene ID	51284
Other Names	PRO285; TLR 7; Tlr7; TLR7_HUMAN ; Toll like receptor 7 ; Toll-like receptor 7; UNQ248.
Format	PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

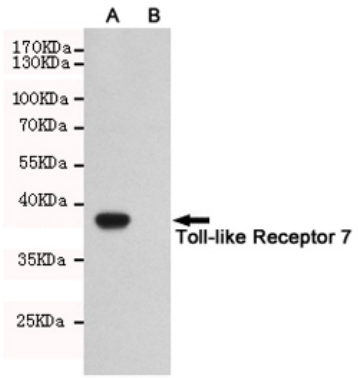
Name	TLR7 (HGNC:15631)
Function	Endosomal receptor that plays a key role in innate and adaptive immunity (PubMed:14976261, PubMed:32433612). Controls host immune response against pathogens through recognition of uridine- containing single strand RNAs (ssRNAs) of viral origin or guanosine analogs (PubMed:12738885, PubMed:27742543, PubMed:31608988, PubMed:32706371, PubMed:35477763). 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:27742543). 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:27742543, PubMed:32706371). In plasmacytoid dendritic cells, RNASET2 endonuclease cooperates with PLD3 or PLD4 5'->3' exonucleases to process RNA and release 2',3'-cyclic guanosine monophosphate (2',3'-cGMP) and cytidine-rich RNA fragments that occupy TLR7 ligand-binding pockets and trigger a signaling-

	competent state.
Cellular Location	Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P58681}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P58681}. Endosome {ECO:0000250|UniProtKB:P58681}. Lysosome {ECO:0000250|UniProtKB:P58681}. Cytoplasmic vesicle, phagosome {ECO:0000250|UniProtKB:P58681}. Note=Relocalizes from endoplasmic reticulum to endosome and lysosome upon stimulation with agonist {ECO:0000250|UniProtKB:P58681}
Tissue Location	Detected in brain, placenta, spleen, stomach, small intestine, lung and in plasmacytoid pre-dendritic cells. Expressed in peripheral mononuclear blood cells (PubMed:32706371)

Background

Key component of innate and adaptive immunity. TLRs (Toll-like receptors) control host immune response against pathogens through recognition of molecular patterns specific of microorganisms. TLR7 is a nucleotide-sensing TLR which is activated by single-st

Images



Western blot detection of Toll-like Receptor 7 in CHO-K1 cell lysate(B)and CHO-K1 transfected by Toll-like Receptor 7(A)cell lysate using Toll-like Receptor 7 mouse mAb (1:1000 diluted).Predicted band size: 40KDa.Observed band size:40KDa.

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