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Anti-TLR7 Rabbit Monoclonal Antibody

Catalog # ABO13545

Product Information

Application	WB, IHC
Primary Accession	Q9NYK1
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid
Description	Anti-TLR7 Rabbit Monoclonal Antibody . Tested in WB, IHC applications. This antibody reacts with Human.

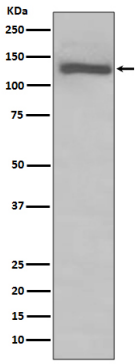
Additional Information

Gene ID	51284
Other Names	Toll-like receptor 7, TLR7 (HGNC:15631)
Calculated MW	120922
Application Details	WB 1:500-1:2000 IHC 1:50-1:200
Subcellular Localization	Endoplasmic reticulum membrane ; Single-pass type I membrane protein. Endosome. Lysosome. Cytoplasmic vesicle, phagosome. Relocalizes from endoplasmic reticulum to endosome and lysosome upon stimulation with agonist..
Tissue Specificity	Detected in brain, placenta, spleen, stomach, small intestine, lung and in plasmacytoid pre-dendritic cells.
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: ABOO-20
Immunogen	A synthesized peptide derived from human TLR7
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated 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)

Images



Western blot analysis of TLR7 expression in Raji cell lysate.

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