

Anti-Toll-like Receptor 7 Antibody
Mouse Anti Human Monoclonal Antibody
Catalog # AP53404**Specification**

Anti-Toll-like Receptor 7 Antibody - Product Information

Application	WB
Primary Accession	O9NYK1
Other Accession	NM_016562
Reactivity	Transfected
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Immunogen	Purified recombinant human Toll-like Receptor protein fragments expressed in E.coli.
Purification	Affinity purified

Anti-Toll-like Receptor 7 Antibody - Additional Information**Gene ID** 51284**Other Names**

PRO285; TLR 7; Tlr7; TLR7_HUMAN ; Toll like receptor 7 ; Toll-like receptor 7; UNQ248.

Dilution

WB~~1:1000

Format

PBS(pH 7.4) containing with 0.09% (W/V) sodium azide and 50% glycerol.

Storage

Store at -20 °C.Stable for 12 months from date of receipt

Anti-Toll-like Receptor 7 Antibody - 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:32706371, PubMed:32706371).

[35477763](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/27742543), PubMed:[32706371](http://www.uniprot.org/citations/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

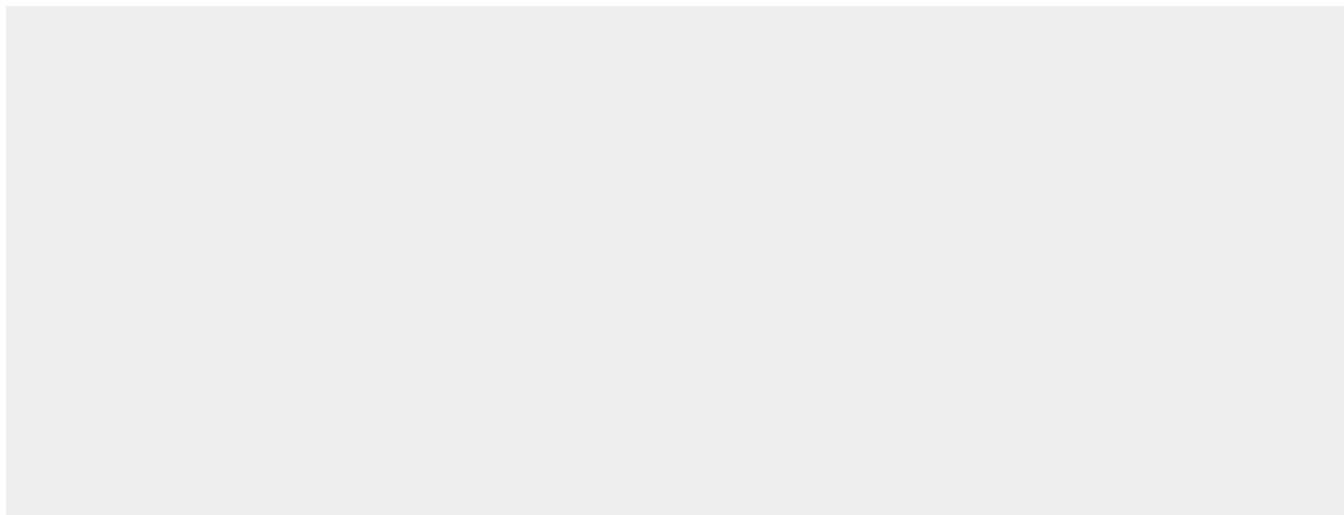
Detected in brain, placenta, spleen, stomach, small intestine, lung and in plasmacytoid pre-dendritic cells. Expressed in peripheral mononuclear blood cells (PubMed:32706371)

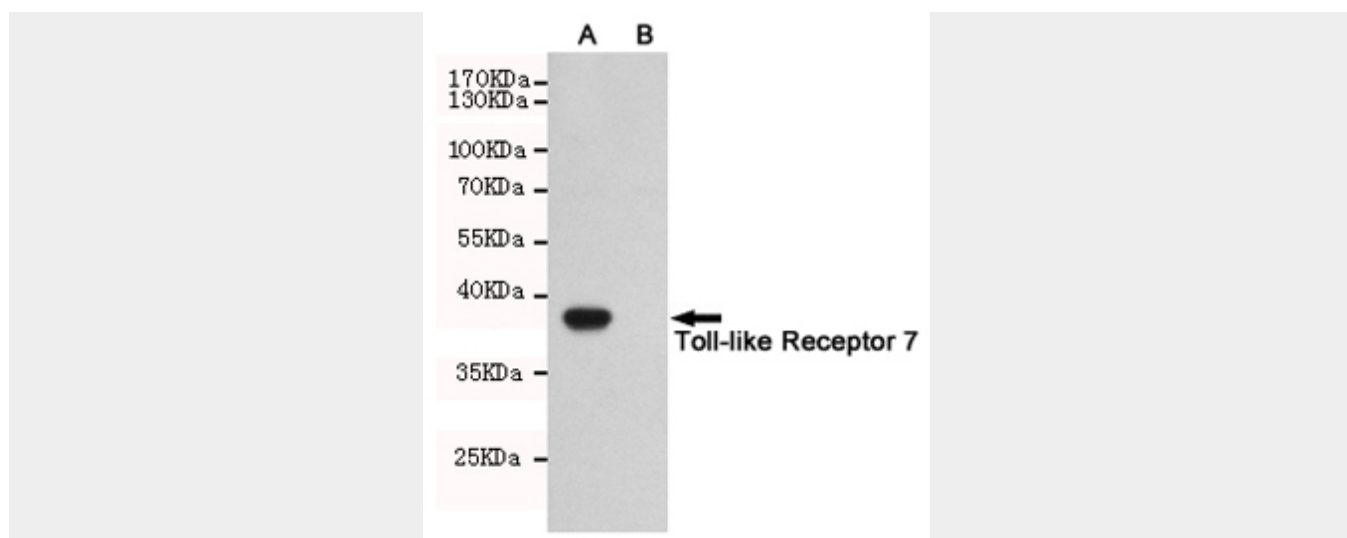
Anti-Toll-like Receptor 7 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Toll-like Receptor 7 Antibody - Images





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

Anti-Toll-like Receptor 7 Antibody - 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-stranded RNA.