

### TLR7 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP13712B

### Specification

# TLR7 Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Calculated MW Antigen Region WB,E <u>O9NYK1</u> <u>P58681</u>, <u>NP\_057646.1</u> Human Mouse Rabbit Polyclonal Rabbit IgG 120922 899-926

## TLR7 Antibody (C-term) - Additional Information

Gene ID 51284

**Other Names** Toll-like receptor 7, TLR7

### Target/Specificity

This TLR7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 899-926 amino acids from the C-terminal region of human TLR7.

Dilution WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

TLR7 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## TLR7 Antibody (C-term) - Protein Information

Name TLR7 (<u>HGNC:15631</u>)

Function Endosomal receptor that plays a key role in innate and adaptive immunity



(PubMed:<u>14976261</u>, PubMed:<u>32433612</u>). Controls host immune response against pathogens through recognition of uridine- containing single strand RNAs (ssRNAs) of viral origin or guanosine analogs (PubMed:<u>31608988</u>, PubMed:<u>27742543</u>, PubMed:<u>12738885</u>, PubMed:<u>32706371</u>, PubMed:<u>35477763</u>). 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:<u>27742543</u>). 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:<u>27742543</u>, PubMed:<u>32706371</u>).

#### **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**

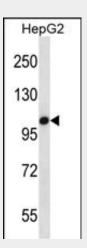
Detected in brain, placenta, spleen, stomach, small intestine, lung and in plasmacytoid pre-dendritic cells. Expressed in peripheral mononuclear blood cells (PubMed:32706371)

## TLR7 Antibody (C-term) - Protocols

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

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### TLR7 Antibody (C-term) - Images



TLR7 Antibody (C-term) (Cat. #AP13712b) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the TLR7 antibody detected the TLR7 protein (arrow).



# TLR7 Antibody (C-term) - Background

The protein encoded by this gene is a member of the Toll-like receptor (TLR) family which plays a fundamental role in pathogen recognition and activation of innate immunity. TLRs are highly conserved from Drosophila to humans and share structural and functional similarities. They recognize pathogen-associated molecular patterns (PAMPs) that are expressed on infectious agents, and mediate the production of cytokines necessary for the development of effective immunity. The various TLRs exhibit different patterns of expression. This gene is predominantly expressed in lung, placenta, and spleen, and lies in close proximity to another family member, TLR8, on chromosome X.

## TLR7 Antibody (C-term) - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Manuse, M.J., et al. Virology 405(2):383-389(2010) Cros, J., et al. Immunity 33(3):375-386(2010) Shen, N., et al. Proc. Natl. Acad. Sci. U.S.A. 107(36):15838-15843(2010) Enevold, C., et al. Mult. Scler. 16(8):942-949(2010)