

**Anti-TLR2 Picoband Antibody**  
Catalog # ABO10023**Specification**

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**Anti-TLR2 Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O60603</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Toll-like receptor 2 (TLR2) detection. Tested with WB in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-TLR2 Picoband Antibody - Additional Information**

**Gene ID** 7097

**Other Names**

Toll-like receptor 2, Toll/interleukin-1 receptor-like protein 4, CD282, TLR2, TIL4

**Calculated MW**

89838 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human<br>

**Subcellular Localization**

Membrane ; Single-pass type I membrane protein .

**Tissue Specificity**

Highly expressed in peripheral blood leukocytes, in particular in monocytes, in bone marrow, lymph node and in spleen. Also detected in lung and in fetal liver. Levels are low in other tissues.

**Protein Name**

Toll-like receptor 2

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>N.

**Immunogen**

E.coli-derived human TLR2 recombinant protein (Position: H610-S784). Human TLR2 shares 87.4% amino acid (aa) sequence identity with mouse TLR2.

**Purification**

Immunogen affinity purified.

#### Cross Reactivity

No cross reactivity with other proteins.

#### Storage

**At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

### Anti-TLR2 Picoband Antibody - Protein Information

Name TLR2 ([HGNC:11848](#))

Synonyms TIL4

#### Function

Cooperates with LY96 to mediate the innate immune response to bacterial lipoproteins and other microbial cell wall components. Cooperates with TLR1 or TLR6 to mediate the innate immune response to bacterial lipoproteins or lipopeptides (PubMed:<a href="http://www.uniprot.org/citations/17889651" target="\_blank">17889651</a>, PubMed:<a href="http://www.uniprot.org/citations/21078852" target="\_blank">21078852</a>). Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. May also activate immune cells and promote apoptosis in response to the lipid moiety of lipoproteins (PubMed:<a href="http://www.uniprot.org/citations/10426995" target="\_blank">10426995</a>, PubMed:<a href="http://www.uniprot.org/citations/10426996" target="\_blank">10426996</a>). Recognizes mycoplasmal macrophage-activating lipopeptide-2kD (MALP-2), soluble tuberculosis factor (STF), phenol-soluble modulins (PSM) and B.burgdorferi outer surface protein A lipoprotein (OspA-L) cooperatively with TLR6 (PubMed:<a href="http://www.uniprot.org/citations/11441107" target="\_blank">11441107</a>). Stimulation of monocytes in vitro with M.tuberculosis PstS1 induces p38 MAPK and ERK1/2 activation primarily via this receptor, but also partially via TLR4 (PubMed:<a href="http://www.uniprot.org/citations/16622205" target="\_blank">16622205</a>). MAPK activation in response to bacterial peptidoglycan also occurs via this receptor (PubMed:<a href="http://www.uniprot.org/citations/16622205" target="\_blank">16622205</a>). Acts as a receptor for M.tuberculosis lipoproteins LprA, LprG, LpqH and PstS1, some lipoproteins are dependent on other coreceptors (TLR1, CD14 and/or CD36); the lipoproteins act as agonists to modulate antigen presenting cell functions in response to the pathogen (PubMed:<a href="http://www.uniprot.org/citations/19362712" target="\_blank">19362712</a>). M.tuberculosis HSP70 (dnaK) but not HSP65 (groEL-2) acts via this protein to stimulate NF-kappa-B expression (PubMed:<a href="http://www.uniprot.org/citations/15809303" target="\_blank">15809303</a>). Recognizes M.tuberculosis major T-antigen EsxA (ESAT-6) which inhibits downstream MYD88-dependent signaling (shown in mouse) (By similarity). Forms activation clusters composed of several receptors depending on the ligand, these clusters trigger signaling from the cell surface and subsequently are targeted to the Golgi in a lipid-raft dependent pathway. Forms the cluster TLR2:TLR6:CD14:CD36 in response to diacylated lipopeptides and TLR2:TLR1:CD14 in response to triacylated lipopeptides (PubMed:<a href="http://www.uniprot.org/citations/16880211" target="\_blank">16880211</a>). Required for normal uptake of M.tuberculosis, a process that is inhibited by M.tuberculosis LppM (By similarity).

#### Cellular Location

Membrane {ECO:0000250|UniProtKB:Q9QUN7}; Single-pass type I membrane protein. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:Q9QUN7}; Single-pass type I membrane protein. Membrane raft. Note=Does not reside in lipid rafts before stimulation but accumulates increasingly in the raft upon the presence of the microbial ligand. In response to

diacylated lipoproteins, TLR2:TLR6 heterodimers are recruited in lipid rafts, this recruitment determines the intracellular targeting to the Golgi apparatus. Triacylated lipoproteins induce the same mechanism for TLR2:TLR1 heterodimers.

#### Tissue Location

Highly expressed in peripheral blood leukocytes, in particular in monocytes, in bone marrow, lymph node and in spleen. Also detected in lung and in fetal liver. Levels are low in other tissues

#### Anti-TLR2 Picoband 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-TLR2 Picoband Antibody - Images

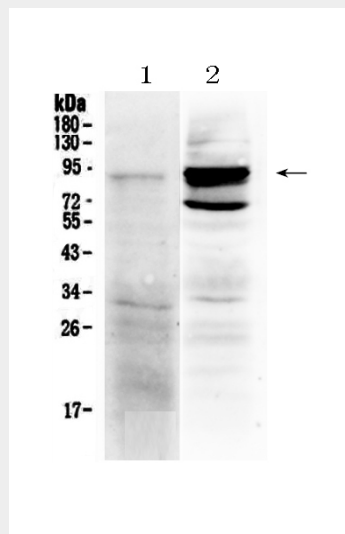


Figure 1. Western blot analysis of TLR2 using anti- TLR2 antibody (ABO10023). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat spleen tissue lysates, Lane 2: mouse spleen tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- TLR2 antigen affinity purified polyclonal antibody (Catalog # ABO10023) at 0.5  $\mu$ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for TLR2 at approximately 89KD. The expected band size for TLR2 is at 89KD.

#### Anti-TLR2 Picoband Antibody - Background

Toll-like receptor 2, also known as TLR-2, is a protein that in humans is encoded by the TLR2 gene. It has also been designated as CD282 (cluster of differentiation 282). TLR-2 plays a role in the immune system. And TLR-2 is a membrane protein, a receptor, which is expressed on the surface of certain cells and recognizes foreign substances and passes on appropriate signals to the cells of the immune system. TLR2 expresses as 4- and 4.4-kb mRNAs in heart, brain, and muscle.