

**Anti-CD14 Picoband Antibody**  
Catalog # ABO12533

**Specification**

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**Anti-CD14 Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P08571</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Monocyte differentiation antigen CD14(CD14) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

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

**Anti-CD14 Picoband Antibody - Additional Information**

**Gene ID** 929

**Other Names**

Monocyte differentiation antigen CD14, Myeloid cell-specific leucine-rich glycoprotein, CD14, Monocyte differentiation antigen CD14, urinary form, Monocyte differentiation antigen CD14, membrane-bound form, CD14

**Calculated MW**

40076 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat  
Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human

**Subcellular Localization**

Cell membrane ; Lipid- anchor, GPI-anchor . Secreted . Membrane raft . Golgi apparatus . Secreted forms may arise by cleavage of the GPI anchor. .

**Tissue Specificity**

Detected on macrophages (at protein level) (PubMed:1698311). Expressed strongly on the surface of monocytes and weakly on the surface of granulocytes; also expressed by most tissue macrophages. .

**Protein Name**

Monocyte differentiation antigen CD14

**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>.

### Immunogen

E. coli-derived human CD14 recombinant protein (Position: N65-D327). Human CD14 shares 69.8% and 66.8% amino acid (aa) sequence identity with mouse and rat CD14, respectively.

### Purification

Immunogen affinity purified.

### Cross Reactivity

No cross reactivity with other proteins.

### Storage

**At -20°C for one year. After reconstitution, 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-CD14 Picoband Antibody - Protein Information

### Name CD14

### Function

Coreceptor for bacterial lipopolysaccharide (PubMed:<a href="http://www.uniprot.org/citations/1698311" target="\_blank">1698311</a>, PubMed:<a href="http://www.uniprot.org/citations/23264655" target="\_blank">23264655</a>). In concert with LBP, binds to monomeric lipopolysaccharide and delivers it to the LY96/TLR4 complex, thereby mediating the innate immune response to bacterial lipopolysaccharide (LPS) (PubMed:<a href="http://www.uniprot.org/citations/20133493" target="\_blank">20133493</a>, PubMed:<a href="http://www.uniprot.org/citations/22265692" target="\_blank">22265692</a>, PubMed:<a href="http://www.uniprot.org/citations/23264655" target="\_blank">23264655</a>). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:<a href="http://www.uniprot.org/citations/8612135" target="\_blank">8612135</a>). Acts as a coreceptor for TLR2:TLR6 heterodimer in response to diacylated lipopeptides and for TLR2:TLR1 heterodimer in response to triacylated lipopeptides, these clusters trigger signaling from the cell surface and subsequently are targeted to the Golgi in a lipid-raft dependent pathway (PubMed:<a href="http://www.uniprot.org/citations/16880211" target="\_blank">16880211</a>). Binds electronegative LDL (LDL(-)) and mediates the cytokine release induced by LDL(-) (PubMed:<a href="http://www.uniprot.org/citations/23880187" target="\_blank">23880187</a>).

### Cellular Location

Cell membrane; Lipid-anchor, GPI-anchor. Secreted. Membrane raft. Golgi apparatus.  
Note=Secreted forms may arise by cleavage of the GPI anchor.

### Tissue Location

Detected on macrophages (at protein level) (PubMed:1698311). Expressed strongly on the surface of monocytes and weakly on the surface of granulocytes; also expressed by most tissue macrophages.

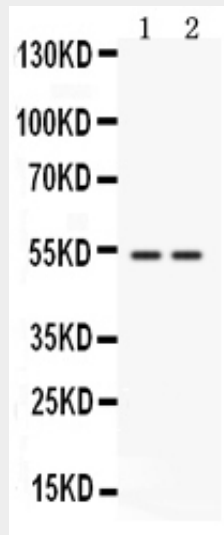
## Anti-CD14 Picoband Antibody - Protocols

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

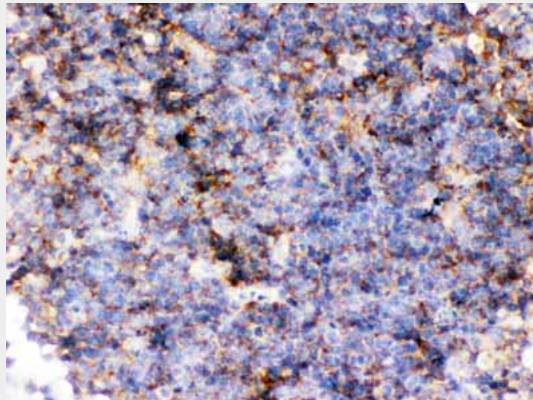
- [Western Blot](#)
- [Blocking Peptides](#)

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

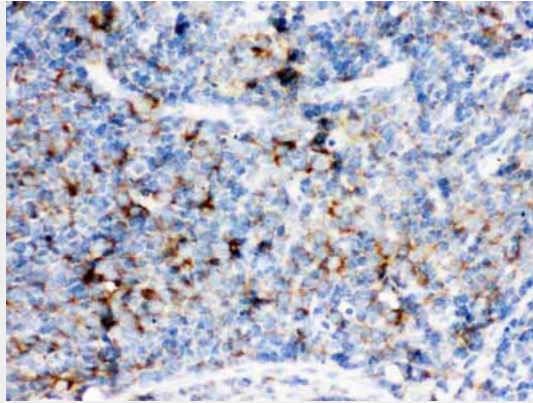
#### Anti-CD14 Picoband Antibody - Images



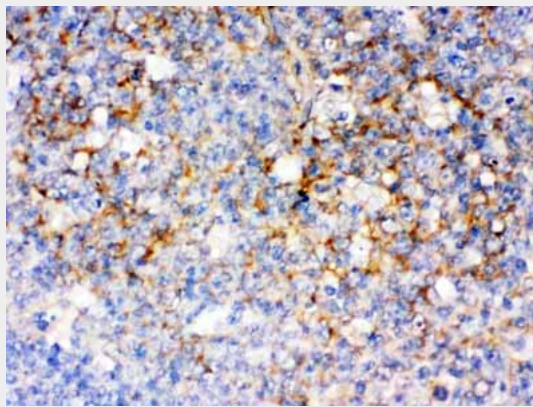
Western blot analysis of CD14 expression in rat brain extract (lane 1) and mouse liver extract (lane 2). CD14 at 50KD was detected using rabbit anti-CD14 Antigen Affinity purified polyclonal antibody (Catalog # ABO12533) at 0.5  $\mu$ g/mL. The blot was developed using chemiluminescence (ECL) method .



CD14 was detected in paraffin-embedded sections of mouse lymphaden tissues using rabbit anti-CD14 Antigen Affinity purified polyclonal antibody (Catalog # ABO12533) at 1  $\mu$ g/mL. The immunohistochemical section was developed using SABC method .



CD14 was detected in paraffin-embedded sections of rat lymphaden tissues using rabbit anti-CD14 Antigen Affinity purified polyclonal antibody (Catalog # ABO12533) at 1  $\mu$ g/mL. The immunohistochemical section was developed using SABC method .



CD14 was detected in paraffin-embedded sections of human tonsil tissues using rabbit anti- CD14 Antigen Affinity purified polyclonal antibody (Catalog # ABO12533) at 1  $\mu$ g/mL. The immunohistochemical section was developed using SABC method .

#### **Anti-CD14 Picoband Antibody - Background**

CD14 is a single-copy gene encoding 2 protein forms: a 50- to 55-kD glycosylphosphatidylinositol-anchored membrane protein (mCD14) and a monocyte or liver-derived soluble serum protein (sCD14) that lacks the anchor. This gene is located at bands 5q23-q31. The protein encoded by this gene is a surface antigen that is preferentially expressed on monocytes/macrophages. CD14 acts as a co-receptor (along with the Toll-like receptor TLR 4 and MD-2) for the detection of bacterial lipopolysaccharide (LPS). CD14 can bind LPS only in the presence of lipopolysaccharide-binding protein (LBP). Although LPS is considered its main ligand, CD14 also recognizes other pathogen-associated molecular patterns.