

**CD14 Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP6294A**

### Specification

#### CD14 Antibody (N-term) - Product Information

Application	IHC-P, FC, WB, IF, IHC-P-Leica,E
Primary Accession	<a href="#">P08571</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	54-83

#### CD14 Antibody (N-term) - 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

##### Target/Specificity

This CD14 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 54-83 amino acids from the N-terminal region of human CD14.

##### Dilution

IHC-P~~N/A  
FC~~1:25  
WB~~1:1000  
IF~~1:25  
IHC-P-Leica~~1:1000  
E~~Use at an assay dependent concentration.

##### 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

CD14 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

#### CD14 Antibody (N-term) - Protein Information

**Name** CD14

**Function** Coreceptor for bacterial lipopolysaccharide (PubMed:[1698311](#), PubMed:[23264655](#)). 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:[20133493](#), PubMed:[22265692](#), PubMed:[23264655](#)). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:[8612135](#)). 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:[16880211](#)). Binds electronegative LDL (LDL(-)) and mediates the cytokine release induced by LDL(-) (PubMed:[23880187](#)).

**Cellular Location**

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

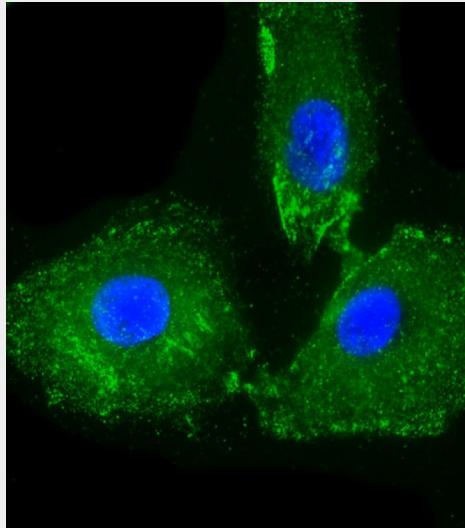
**Tissue Location**

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.

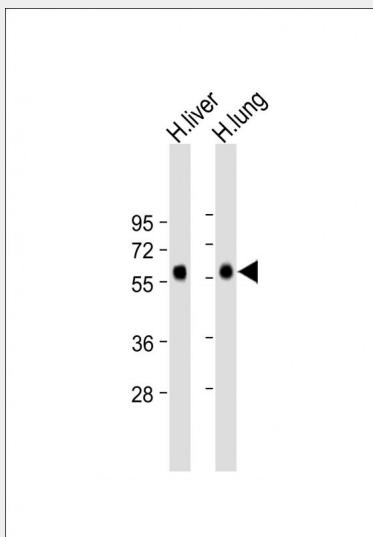
**CD14 Antibody (N-term) - Protocols**

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

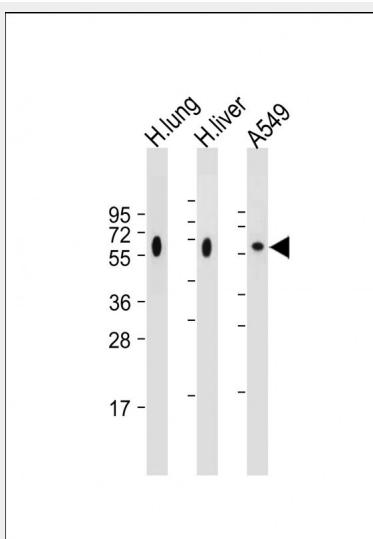
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**CD14 Antibody (N-term) - Images**

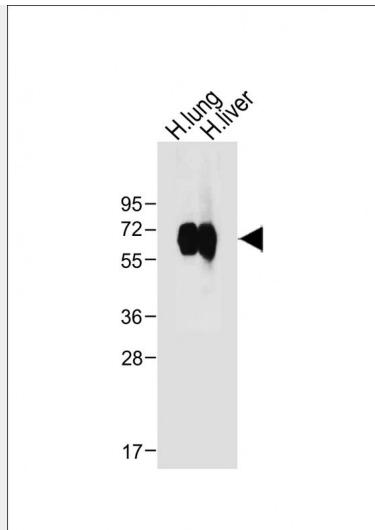
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized A549 cells labeling CD14 with AP6294A at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-Rabbit IgG (OH191631) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm and membrane staining on A549 cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (1186255) at 1/500 dilution (red). The nuclear counter stain is DAPI (blue).



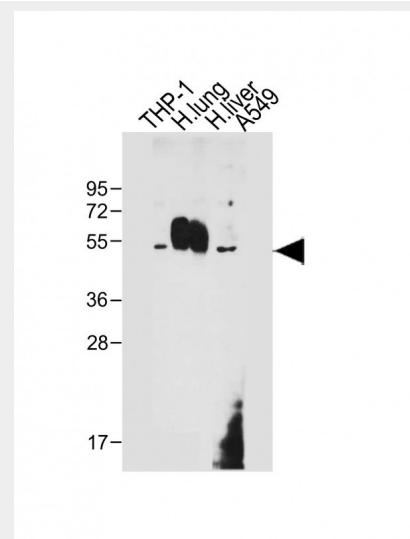
All lanes : Anti-CD14 Antibody (N-term) at 1:2000 dilution Lane 1: Human liver lysate Lane 2: Human lung lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



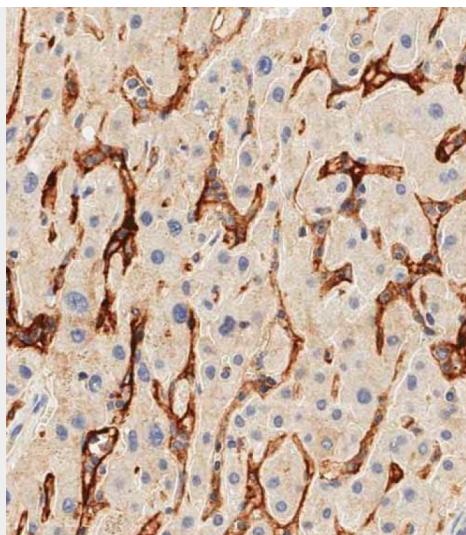
All lanes : Anti-CD14 Antibody (N-term) at 1:2000 dilution Lane 1: Human lung tissue lysate Lane 2: Human liver tissue lysate Lane 3: A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



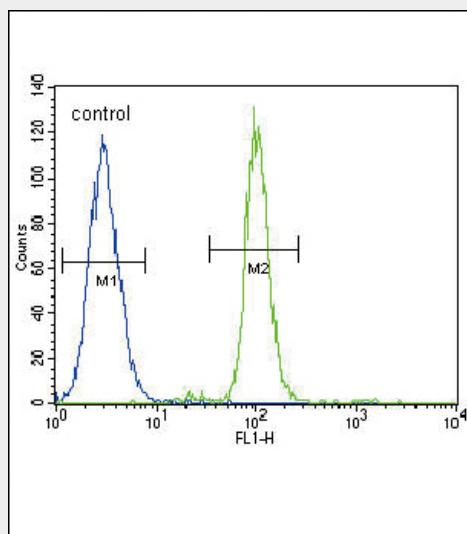
All lanes : Anti-CD14 Antibody (N-term) at 1:1000 dilution Lane 1: Human lung tissue lysate Lane 2: Human liver tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



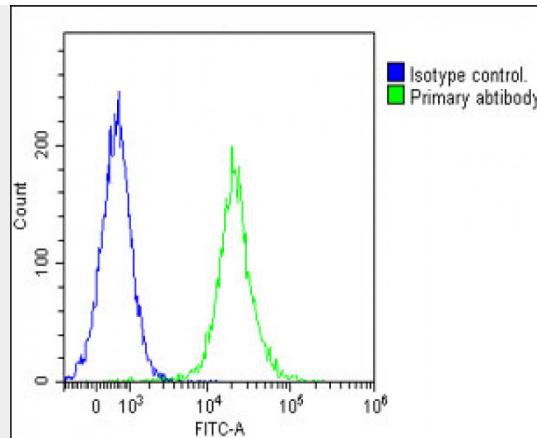
All lanes : Anti-CD14 Antibody (N-term) at 1:1000 dilution Lane 1: THP-1 whole cell lysate Lane 2: Human lung tissue lysate Lane 3: Human liver tissue lysate Lane 4: A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded human liver tissue using AP6294A performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature; antigen retrieval was by heat mediation with a EDTA buffer (pH9.0). Samples were incubated with primary antibody(1:1000) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



CD14 Antibody (N-term) (Cat. #AP6294a) flow cytometric analysis of A549 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Overlay histogram showing Jurkat cells stained with AP6294A (green line). The cells were fixed with 2% paraformaldehyde and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at Room temperature. Isotype control antibody (blue line) was rabbit IgG1 (1 $\mu$ g/1 $\times$ 10 $^6$  cells) used under the same conditions. Acquisition of >10,000 events was performed.

#### **CD14 Antibody (N-term) - Background**

CD14 is a surface protein preferentially expressed on monocytes/macrophages. It binds lipopolysaccharide binding protein and recently has been shown to bind apoptotic cells.

#### **CD14 Antibody (N-term) - References**

Donati, M., J. Periodontol. 79 (3), 517-524 (2008)  
Yuan, F.F., Immunol. Cell Biol. 86 (3), 268-270 (2008)  
Setoguchi, M., Biochim. Biophys. Acta 1008 (2), 213-222 (1989)  
Goyert, S.M., Science 239 (4839), 497-500 (1988)

#### **CD14 Antibody (N-term) - Citations**

- [Enhanced autophagy promotes the clearance of in diabetic rats with wounds](#)
- [Endothelialization of arterial vascular grafts by circulating monocytes](#)
- [Tandem Repeat Effector Targets Differentially Influence Infection.](#)
- [Negative regulation of Toll-like receptor-4 signaling through the binding of glycosylphosphatidylinositol-anchored glycoprotein, CD14, with the sialic acid-binding lectin, CD33.](#)