10320 Camino Santa Fe, Suite G
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CD14 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6294A

Specification

CD14 Antibody (N-term) - Product Information

Application	**IF, WB, IHC-P-Leica, FC,E**
Primary Accession	P08571
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
IF~~1:25
WB~~1:2000
IHC-P-Leica~~1:1000
FC~~1:10~50

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:23264655, PubMed:22265692). 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.

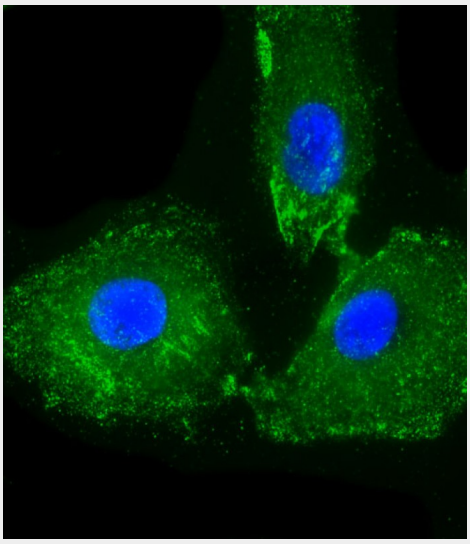
Tissue Location
Detected on macrophages (at protein level) (PubMed:1698311). Expressed strongly on the surface of monocytes and weakly on the surface of granulocytes; also expressed by most tissue macrophages.

CD14 Antibody (N-term) - Protocols

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

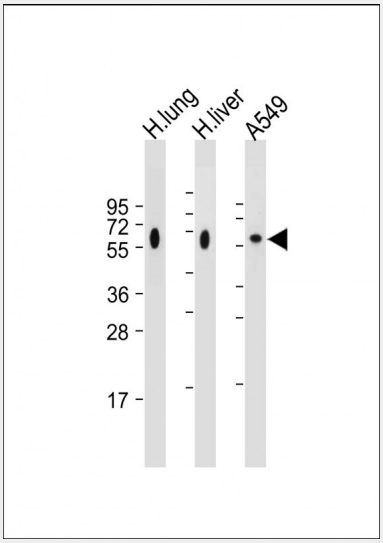
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CD14 Antibody (N-term) - Images

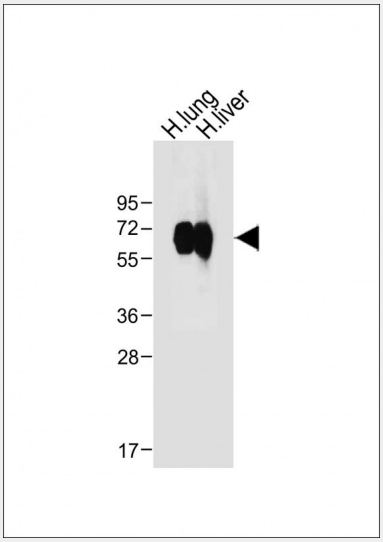


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized A549 cells labeling CD14 with AP6294A at 1/25 dilution, followed by Dylight® 488-conjugated

goat anti-Rabbit IgG (OH191631) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm and membrance 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).

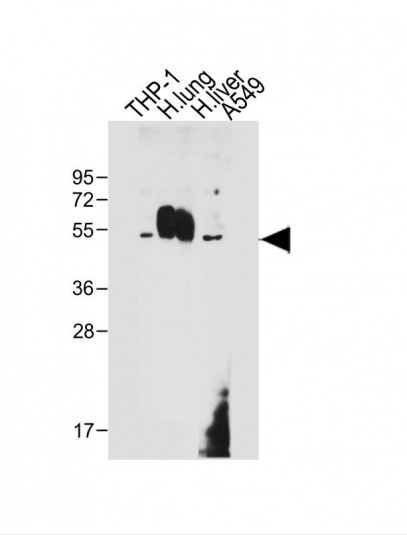


All lanes : Anti-CD14 Antibody (N-term) at 1:2000 dilution Lane 1: Human lung tissue lysate Lane 2: Human liver tissue lysate Lane 3: A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40 kDa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

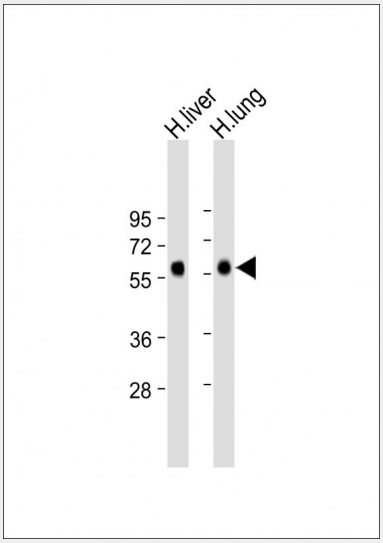


All lanes : Anti-CD14 Antibody (N-term) at 1:1000 dilution Lane 1: Human lung tissue lysate Lane 2: Human liver tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40 kDa Blocking/Dilution buffer: 5%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

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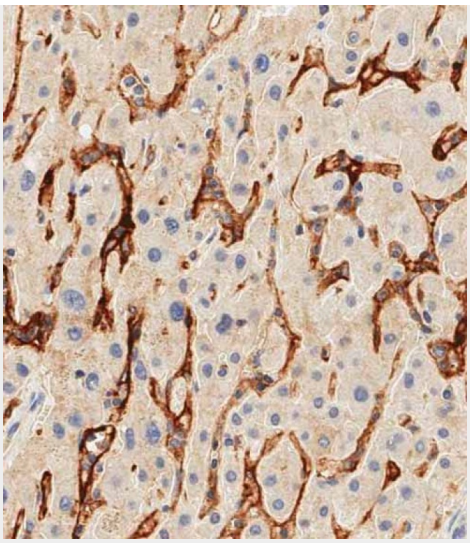


All lanes : Anti-CD14 Antibody (N-term) at 1:1000 dilution Lane 1: THP-1 whole cell lysate Lane 2: Human lung tissue lysate Lane 3: Human liver tissue lysate Lane 4: A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution.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

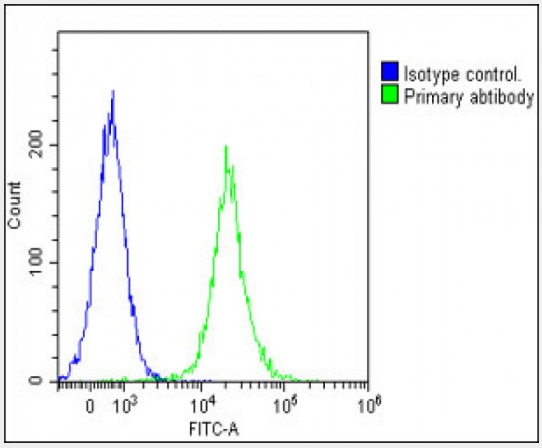


All lanes : Anti-CD14 Antibody (N-term) at 1:2000 dilution Lane 1: Human liver lysate Lane 2: Human lung lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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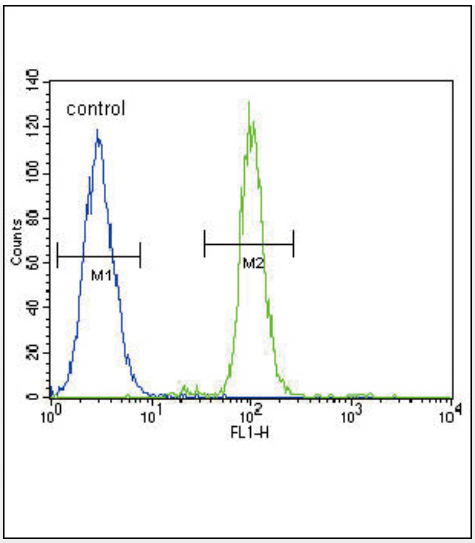


Immunohistochemical analysis of paraffin-embedded human liver tissue using AP6294A performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature; antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:1000) for 1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



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 icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (1:25 dilution) for 60 min at 37ºC. 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 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

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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.

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.