

CD-14 Antibody (NT)
Rabbit Polyclonal Antibody
Catalog # ABV11283**Specification**

CD-14 Antibody (NT) - Product Information

Application	WB, IF, IHC
Primary Accession	P08571
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

CD-14 Antibody (NT) - Additional Information**Gene ID 929**

Positive Control	Western blot: 293 cell lysate, IHC: human lung carcinoma, FACS: A549 cells, IF: A549 cells
Application & Usage	Western blot: ~1:1000, IHC: ~1:10-1:50, IF: ~1:10-1:50, FACS: ~1:10-1:50.

Other Names

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

Target/Specificity

CD-14

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µl of antibody in PBS with 0.09% (W/V) sodium azide

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

CD-14 Antibody (NT) is for research use only and not for use in diagnostic or therapeutic

procedures.

CD-14 Antibody (NT) - 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

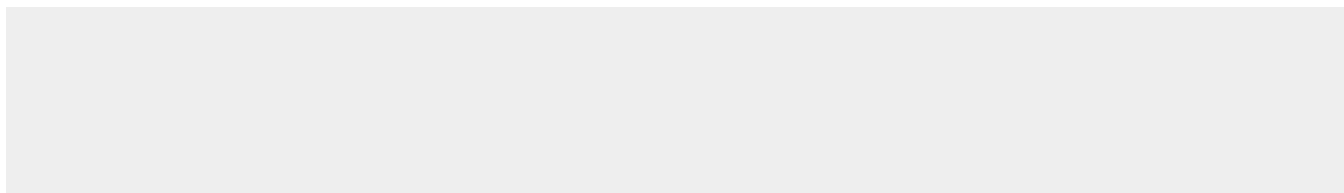
Detected on macrophages (at protein level) (PubMed:1698311). Expressed strongly on the surface of monocytes and weakly on the surface of granulocytes; also expressed by most tissue macrophages.

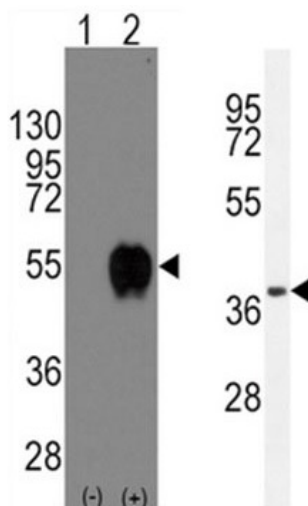
CD-14 Antibody (NT) - Protocols

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

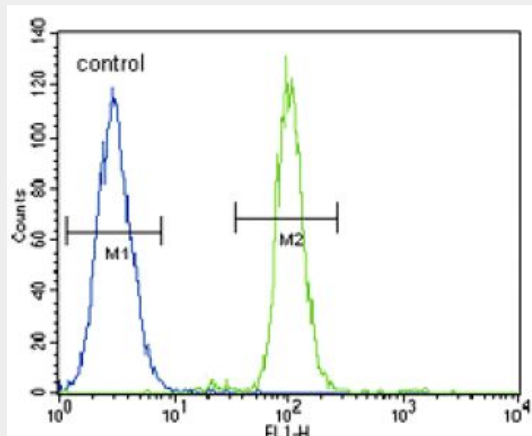
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD-14 Antibody (NT) - Images

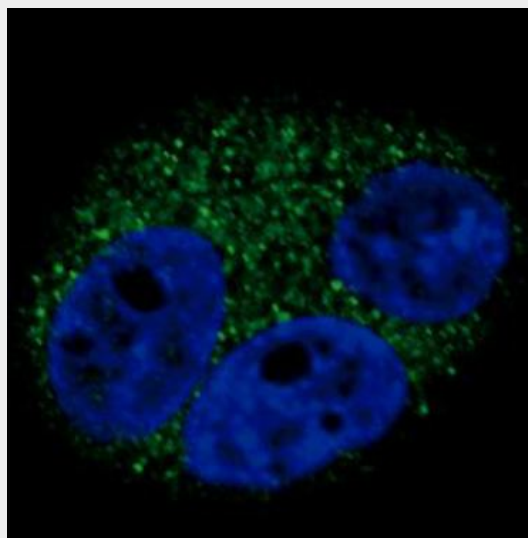




Western blot analysis of CD14 (arrow) using rabbit polyclonal CD14 Antibody (NT). 293 cell lysates (2 µg/lane) either nontransfected (Lane 1) or transiently transfected with the CD14 gene (Lane 2) and A549 cell line lysates (35 µg/lane) used for analysis.

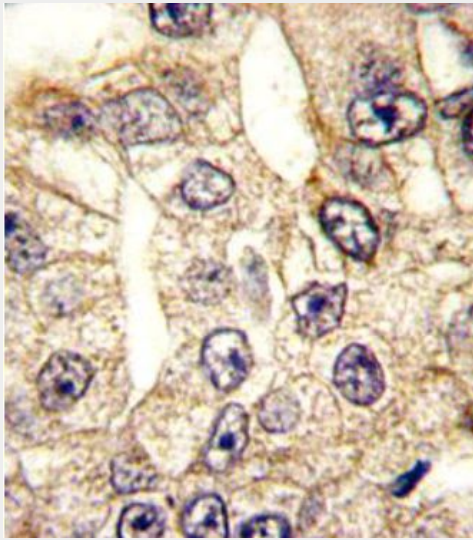


FACS analysis of A549 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies was used for the analysis.



Confocal IF analysis of CD14 Antibody (N-term) with A549 cell followed by Alexa Fluor

488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with CD14 antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining.

CD-14 Antibody (NT) - Background

Lipopolysaccharide (LPS) elicits the secretion of mediators and cytokines produced by activated macrophages and monocytes. CD14 is a glycosylphosphatidylinositol (GPI)-anchored protein found on the surfaces of monocytes and polymorphonuclear leukocytes. CD14 functions as a receptor for LPS, resulting in the secretion of various proteins. An important component in the LPS activation of monocytes through the CD14 receptor is the “adapter molecule,” lipopolysaccharide binding protein (LBP). There are two forms of CD14, a membrane-associated form (mCD14), and a soluble form (sCD14). mCD14 responds to LPS alone and facilitates the secretion of proteins, while cells not expressing mCD14 fail to respond to LPS. The cells that lack mCD14 respond to LPS/LBP in the presence of sCD14.