

# CD14 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1886a

## Product Information

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<b>Application</b>	WB, IHC, ICC, E
<b>Primary Accession</b>	<a href="#">P08571</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	1H5D8
<b>Isotype</b>	IgG2a
<b>Calculated MW</b>	40076
<b>Description</b>	The protein encoded by this gene is a surface antigen that is preferentially expressed on monocytes/macrophages. It cooperates with other proteins to mediate the innate immune response to bacterial lipopolysaccharide. Alternative splicing results in multiple transcript variants encoding the same protein.
<b>Immunogen</b>	Purified recombinant fragment of human CD14 (AA: 20-214) expressed in E. Coli.
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide

## Additional Information

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<b>Gene ID</b>	929
<b>Other Names</b>	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
<b>Dilution</b>	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 ICC~~N/A E~~1/10000
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	CD14 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CD14
<b>Function</b>	Coreceptor for bacterial lipopolysaccharide (PubMed: <a href="#">1698311</a> ,

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](#)).

<b>Cellular Location</b>	Cell membrane; Lipid-anchor, GPI-anchor. Secreted. Membrane raft. Golgi apparatus. Note=Secreted forms may arise by cleavage of the GPI anchor.
<b>Tissue Location</b>	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.

## Background

The membrane-associated protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MDR/TAP subfamily. Members of the MDR/TAP subfamily are involved in multidrug resistance. The protein encoded by this gene is an ATP-dependent drug efflux pump for xenobiotic compounds with broad substrate specificity. It is responsible for decreased drug accumulation in multidrug-resistant cells and often mediates the development of resistance to anticancer drugs. This protein also functions as a transporter in the blood-brain barrier. ;

## References

1. J Immunol. 2012 Dec 15;189(12):5729-44. 2. Iran J Immunol. 2011 Jun;8(2):111-9.

## Images

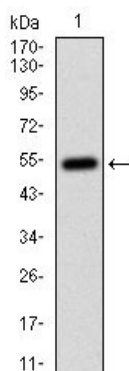


Figure 1: Western blot analysis using CD14 mAb against human CD14 (AA: 20-214) recombinant protein. (Expected MW is 46.8 kDa)

Figure 2: Western blot analysis using CD14 mAb against HEK293 (1) and CD14 (AA: 20-214)-hIgGFc transfected HEK293 (2) cell lysate.

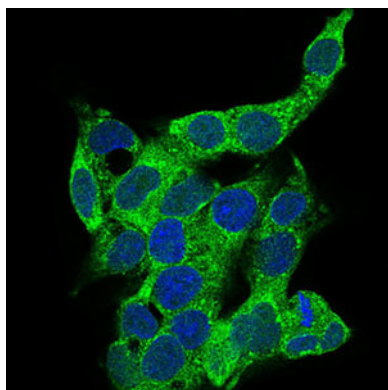
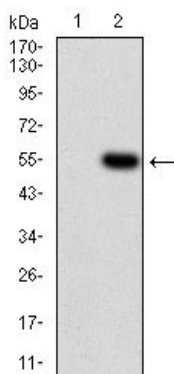


Figure 3: Immunofluorescence analysis of HepG2 cells using CD14 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Secondary antibody from Fisher (Cat#: 35503)

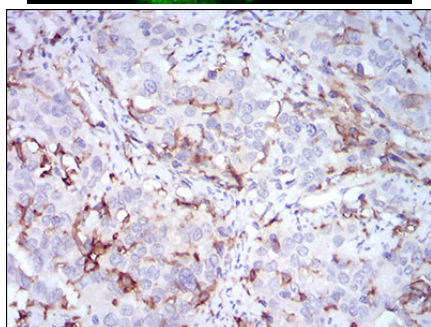


Figure 4: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using CD14 mouse mAb with DAB staining.

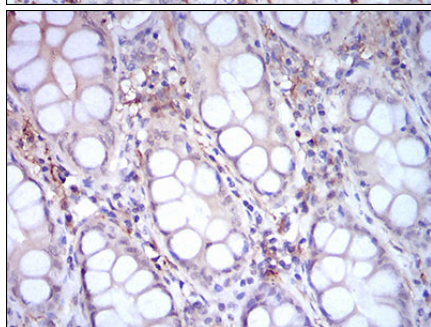


Figure 5: Immunohistochemical analysis of paraffin-embedded colon tissues using CD14 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.