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CD14 (Monocyte / Macrophage Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone LPSR/654]
Catalog # AH12649

Product Information

Application	IF, FC
Primary Accession	P08571
Other Accession	929, 163867
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2b, kappa
Clone Names	LPSR/654
Calculated MW	40076

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
Application Note	IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD14 (Monocyte / Macrophage Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

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.

Background

Recognizes a protein of 55kDa, identified as CD14 (also known lipopolysaccharide receptor). CD14 is expressed strongly on monocytes and macrophage and weakly on the surface of neutrophils. CD14 is anchored to cells by linkage to glycosylphosphatidylinositol (GPI) and functions as a high affinity receptor for complexes of LPS and LPS binding protein (LBP). Soluble CD14, also binding to LPS, acts at physiological concentration as an LPS agonist and has, at higher concentrations, an LPS antagonizing effect in cell activation.

References

Simmons, D.L., et al. 1989. Monocyte antigen CD14 is a phospholipid anchored membrane protein. Blood 73: 284-289. | Schumann, R.R. 1992. Function of lipopolysaccharide (LPS)-binding protein (LBP) and CD14, the receptor for LPS/LBP complexes: a short review. Res. Immunol. 143: 11-15