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Rabbit Anti-CD14 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52111

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	P10810
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	39204
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse CD14
Epitope Specificity	201-300/366
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Lipid-anchor, GPI-anchor.
SIMILARITY	Contains 11 LRR (leucine-rich) repeats.
SUBUNIT	Belongs to the lipopolysaccharide (LPS) receptor, a multi-protein complex containing at least CD14, MD-2 and TLR4.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. [provided by RefSeq, Mar 2010]

Additional Information

Gene ID	12475
Other Names	Monocyte differentiation antigen CD14; Myeloid cell-specific leucine-rich glycoprotein; CD14
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Cd14
Function	Coreceptor for bacterial lipopolysaccharide. 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:16148141). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:15895089, 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 (By similarity). Acts as an accessory receptor for M.tuberculosis lipoproteins LprA, LprG and LpqH, in conjunction with coreceptors TLR2 and TLR1. The lipoproteins act as agonists to modulate antigen presenting cell functions in response to the pathogen (PubMed:19362712). Binds electronegative LDL (LDL(-)) and mediates the cytokine release induced by LDL(-) (By similarity).
Cellular Location	Cell membrane; Lipid-anchor, GPI-anchor {ECO:0000250|UniProtKB:P08571}. Secreted {ECO:0000250|UniProtKB:P08571}. Membrane raft {ECO:0000250|UniProtKB:P08571}. Golgi apparatus {ECO:0000250|UniProtKB:P08571}. Note=Soluble, secreted forms seem to exist. They may arise by cleavage of the GPI anchor {ECO:0000250|UniProtKB:P08571}
Tissue Location	Detected on peritoneal macrophages (at protein level) (PubMed:8612135). Cell surface expression detected in lung alveolar macrophages, dendritic macrophages and lung macrophages (at protein level) (PubMed:19362712).

Background

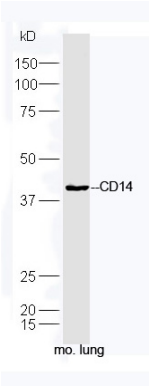
In concert with LBP, binds to monomeric lipopolysaccharide and delivers it to the MD-2/TLR4 complex, thereby mediating the innate immune response to bacterial lipopolysaccharide (LPS). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Up-regulates cell surface molecules, including adhesion molecules (By similarity).

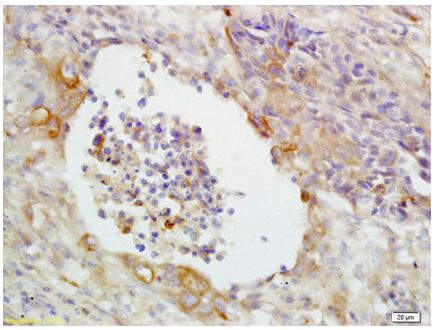
References

Miyazaki Y.,et al.Nucleic Acids Res. 17:2132-2132(1989).
Setoguchi M.,et al.Biochim. Biophys. Acta 1008:213-222(1989).
Ferrero E.,et al.J. Immunol. 145:331-336(1990).
Kim J.I.,et al.J. Biol. Chem. 280:11347-11351(2005).

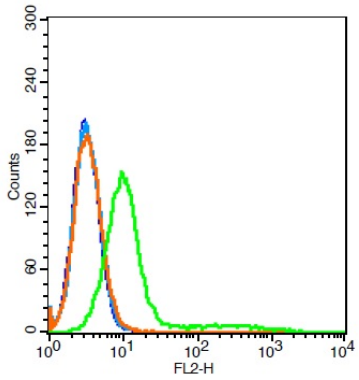
Images

Mouse lung lysates probed with Rabbit Anti-CD14 Polyclonal Antibody, Unconjugated (AP52111) at 1:300 overnight at 4˚C. Followed by a conjugated secondary antibody at 1:5000 for 90 min at 37˚C.





Formalin-fixed and paraffin embedded human lung carcinoma labeled with Anti-CD14 Polyclonal Antibody, Unconjugated (AP52111) at 1:200 followed by conjugation to the secondary antibody and DAB staining



A549 cells probed with CD14 Polyclonal Antibody, Unconjugated (AP52111) at 1:20 for 30 minutes followed by incubation with a conjugated secondary (PE Conjugated) (green) for 30 minutes compared to control cells (blue), secondary only (light blue) and isotype control (orange).