

Datasheet for ABIN638430

anti-CD14 antibody

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Overview

Quantity:	0.1 mg
Target:	CD14
Reactivity:	Human, Non-Human Primate
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD14 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Western Blotting (WB), ELISA, Immunoprecipitation (IP), Functional Studies (Func)

Product Details

Immunogen:	A crude mixture of human urinary proteins precipitated by ammonium sulphate from the urine of a patient suffering from proteinuria.
Clone:	MEM-18
Isotype:	IgG1
Specificity:	The antibody MEM-18 reacts with CD14, a 53-55 kDa GPI (glycosylphosphatidylinositol)-linked extracellular membrane glycoprotein expressed on monocytes, macrophages and weakly on granulocytes, also expressed by most tissue macrophages. In human, the epitope recognized by MEM-18 is located between amino acids 57-64.
Cross-Reactivity (Details):	Non-Human Primates, Human
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

Product Details

Endotoxin Level: Endotoxin level is less than 0.01 EU/μg of the protein, as determined by the LAL test.

Target Details

Target:	CD14
Alternative Name:	CD14 (CD14 Products)
Background:	CD14 Molecule,CD14 is a 55 kDa GPI-anchored glycoprotein, constitutively expressed on the surface of mature monocytes, macrophages, and neutrophils, where it serves as a multifunctional lipopolysaccharide receptor. It is also released to the serum both as a secreted and enzymatically cleaved GPI-anchored form. CD14 binds lipopolysaccharide molecule in a reaction catalyzed by lipopolysaccharide-binding protein (LBP), an acute phase serum protein. The soluble sCD14 is able to discriminate slight structural differences between lipopolysaccharides and is important for neutralization of serum allochthonous lipopolysaccharides by reconstituted lipoprotein particles. CD14 affects allergic, inflammatory and infectious processes.,LPS-receptor, LPSR, MCLR
Gene ID:	929
UniProt:	P08571
Pathways:	TLR Signaling , Activation of Innate immune Response , Cellular Response to Molecule of Bacterial Origin , Toll-Like Receptors Cascades

Application Details

Application Notes:	<p>ELISA: The antibody MEM-18 has been tested as the detection antibody in a sandwich ELISA for analysis of human CD14 in combination with antibody B-A8 (cat. no. 11-304-C100).</p> <p>Functional application: The antibody MEM-18 completely blocks binding of fluorescein (FITC) labeled bacterial LPS to the monocyte surface and it also blocks the binding of CD14 to the extracellular TLR2 domain.</p> <p>Flow cytometry: recommended dilution: 4 μg/mL.</p> <p>Western blotting: Non-reducing conditions.</p>
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4

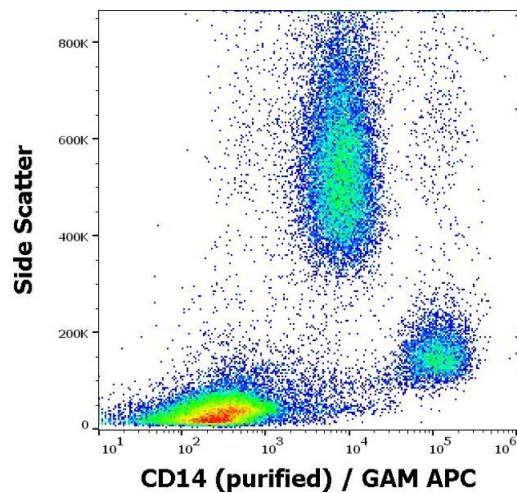
Handling

Preservative:	Azide free
Handling Advice:	Do not freeze.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

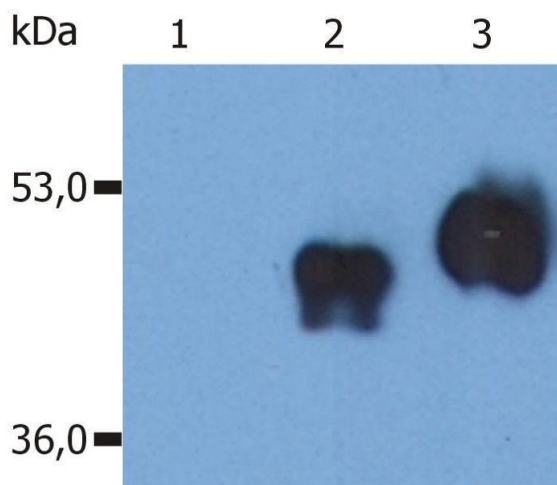
- Product cited in:
- Weiss, Lichtenauer, Kirchner, Stock, Aurich, Christ, Brockhoff, Kunz-Schughart, Jauch, Schlitt, Thasler: "Hepatic progenitor cells from adult human livers for cell transplantation." in: **Gut**, Vol. 57, Issue 8, pp. 1129-38, (2008) ([PubMed](#)).
- Drbal, Moertelmaier, Holzhauser, Muhammad, Fuertbauer, Howorka, Hinterberger, Stockinger, Schütz: "Single-molecule microscopy reveals heterogeneous dynamics of lipid raft components upon TCR engagement." in: **International immunology**, Vol. 19, Issue 5, pp. 675-84, (2007) ([PubMed](#)).
- Angel, Lala, Chen, Edgar, Ostrovsky, Dunbar: "CD14+ antigen-presenting cells in human dermis are less mature than their CD1a+ counterparts." in: **International immunology**, Vol. 19, Issue 11, pp. 1271-9, (2007) ([PubMed](#)).
- Iwaki, Nishitani, Mitsuzawa, Hyakushima, Sano, Kuroki: "The CD14 region spanning amino acids 57-64 is critical for interaction with the extracellular Toll-like receptor 2 domain." in: **Biochemical and biophysical research communications**, Vol. 328, Issue 1, pp. 173-6, (2005) ([PubMed](#)).
- Sing, Rost, Tvardovskaia, Roggenkamp, Wiedemann, Kirschning, Aepfelbacher, Heesemann: "Yersinia V-antigen exploits toll-like receptor 2 and CD14 for interleukin 10-mediated immunosuppression." in: **The Journal of experimental medicine**, Vol. 196, Issue 8, pp. 1017-24, (2002) ([PubMed](#)).

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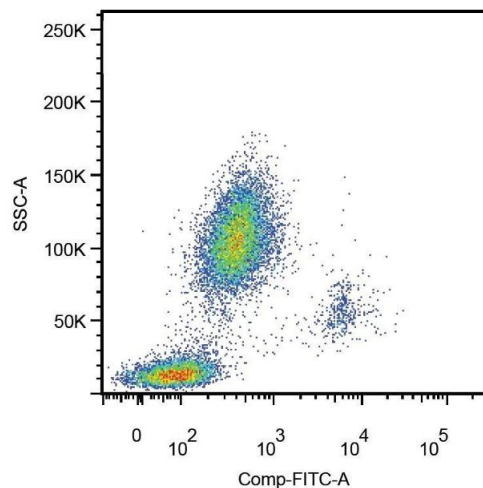
Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD14 (MEM-18) purified antibody (concentration in sample 0,6 μ g/mL, GAM APC).



Western Blotting

Image 2. Western Blotting analysis (non-reducing conditions) of over-expressed human CD14 using anti-CD14 (MEM-18). Lane 1: whole cell lysate HEK 293 transfected with empty vector Lane 2: tissue culture supernatant collected after cultivation of HEK 293 transfected with human CD14 cDNA Lane 3: whole cell lysate of HEK 293 transfected with human CD14 cDNA



Flow Cytometry

Image 3. Surface staining of human peripheral blood leukocytes using anti-human CD14

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN638430.