

Product datasheet for **AM26319FC-N**

Cd14 Rat Monoclonal Antibody [Clone ID: Sa14-2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	Sa14-2
Applications:	FC, FN, IF
Recommended Dilution:	Flow cytometry (3): The typical starting working dilution is 1:50. Functional assays. Immunofluorescence (4): The typical starting working dilution is 1:50. Positive control: RAW-cells.
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	CD14 transfectant
Specificity:	The monoclonal antibody Sa14-2 recognizes the mouse monocyte marker CD14.
Formulation:	PBS Label: FITC State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 1% bovine serum albumin
Concentration:	lot specific
Purification:	Protein G
Conjugation:	FITC
Storage:	Store at 2 - 8 °C.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD14 antigen
Database Link:	Entrez Gene 12475 Mouse P10810



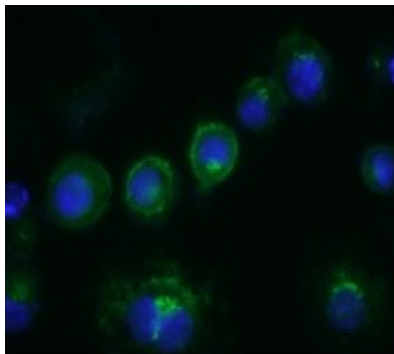
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Background:

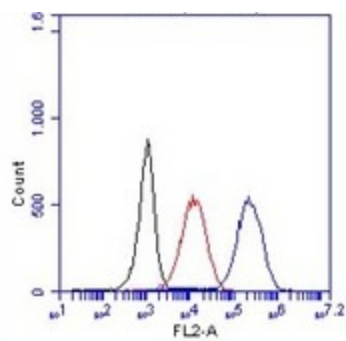
The CD14 receptor is a pattern recognition molecule in the innate immune response against microorganisms and other exogenous and endogenous stress factors. CD14 was characterized as a receptor for LPS. The CD14 gene consists of two exons which code for a single mRNA that is translated into a protein of 375 amino acids. The CD14 protein is composed of eleven leucin-rich repeats, which are also found in TLR and which are important in PAMP binding. In contrast to TLR, however, CD14 lacks a transmembrane domain, and thus cannot initiate intracellular signal transduction by itself. The most important CD14 signaling co-receptor is toll-like receptor 4 (TLR4), which activates, among others, the nuclear factor κ B (NF- κ B) inflammatory pathway. The CD14 protein is processed in the endoplasmic reticulum and expressed as a 55 kDa glycoprotein on the cell surface via a glycosylphosphatidyl (GPI) anchor. Like other GPI-anchored proteins, CD14 accumulates on the cell surface in microdomains known as lipid rafts. CD14 is expressed pre dominantly on the surface of 'myeloid' cells, such as monocytes, macrophages and neutrophils, but at lower levels also on epithelial cells, endothelial cells and fibroblasts. CD14 is also expressed in a soluble form (sCD14). sCD14 may result from secretion of the protein before coupling to the GPI anchor or from shedding or cleavage from the surface of monocytes. sCD14 is present in the circulation and other body fluids and levels of sCD14 in plasma increase during inflammation and infection. CD14 is a molecule with a broad range of functions. In addition to functioning as a pattern recognition receptor for a variety of microbial ligands, CD14 also acts as a receptor for endogenous molecules like intercellular adhesion molecule (ICAM)-3 on the surface of apoptotic cells, amyloid peptid, ceramide, and urate crystals. Ligation of CD14 by these ligands, except for apoptotic cells, mediates activation of inflammatory responses.

Synonyms:

CD14

Product images:

RAW264.7 cells were grown on coverslips, fixed with 1% paraformaldehyde and blocked with BSA. As primary antibody, antibody was used at 2 ug/ml in PBS/BSA 3%



100000 RAW264.7 cells were stained with 1ug/ml for 1h at 4°C (black - no staining; Red - isotype control; blue - antibody)