Product information

Monoclonal anti-human CD14 antibody (clone AT87H7)

Mouse IgG_{2b}, κ

Cat. No. IBATGA0339

Immunogen: Recombinant human CD14 (20-349aa) purified from *E.coli.*

NCBI Accession No.: NP_001167576

Isotype: Mouse IgG_{2b} heavy chain and κ light chain

Clone: Anti-human CD14 mAb, clone AT87H7, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human CD14 protein.

Description: The protein encoded by this gene is a component of the innate immune system. CD14 exists in two forms, one anchored to the membrane by a glycosylphosphatidylinositol tail (mCD14), the other a soluble form (sCD14). Soluble CD14 either appears after shedding of mCD14 (48kDa) or is directly secreted from intracellular vesicles (56kDa).The x-ray crystal structure of human CD14 reveals a monomeric, bent solenoid structure containing a hydrophobic amino-terminal pocket. CD14 was the first described pattern recognition receptor. CD14 acts as a co-receptor (along with the Toll-like receptor TLR4 and MD-2) for the detection of bacterial lipopolysaccharide (LPS). CD14 can bind LPS only in the presence of lipopolysaccharide-binding protein (LBP). Although LPS is considered its main ligand, CD14 also recognizes other pathogen-associated molecular patterns such as lipoteichoic acid.

Concentration: 1 mg/ml

Form: Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

Storage: Can be stored at +4C. For long term storage, aliquot and store at -20C. Avoid repeated freezing and thawing cycles.

Usage: The antibody has been tested by ELISA, Western blot analysis and Flow cytometry to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results. Recommended dilution range for Western blot analysis is 1:500 and ICC/IF, Flow cytometry is 1:100.

Application: ELISA, WB, Flow cyt

Manufactured for:
Immuno-Biological Laboratories, Inc. (IBL-America)
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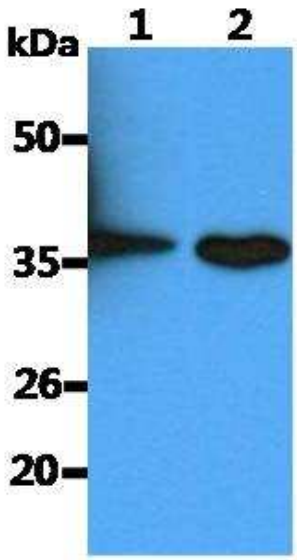
Western blot analysis

The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CD14 antibody (1:500). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

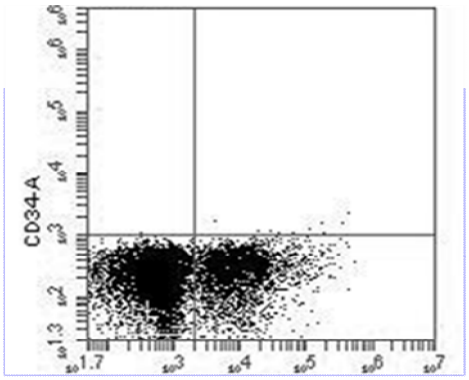
Lane 1.: HeLa cell lysate

Lane 2.: A549 cell lysate

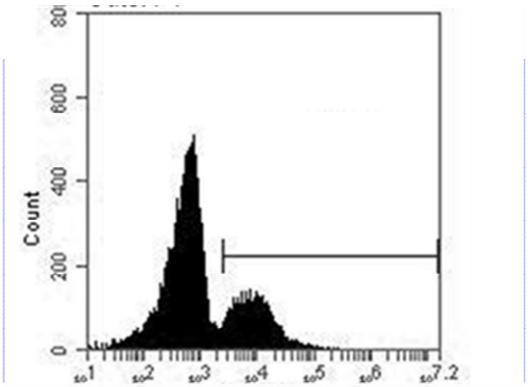


Flow cytometry

Flow cytometry analysis of PBMC, staining CD14. The sample was incubated with the primary antibody at 1:100 for 30min, 4C. The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Gating Strategy: Lymphocyte



CD14



CD14

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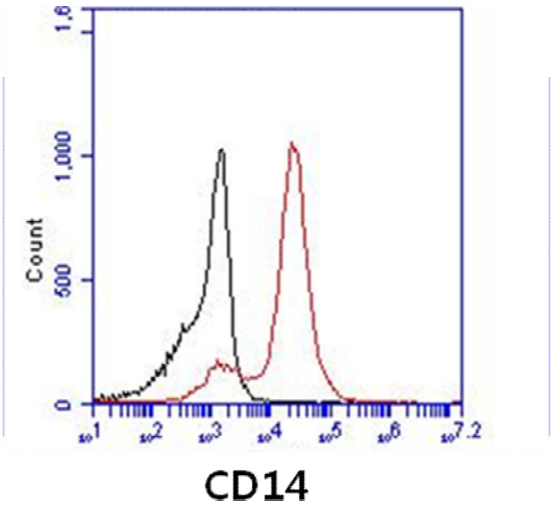
Flow cytometry

Flow cytometry analysis of CD14 in Human THP-1 cell line, staining at 1:100 dilution (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).



General references: Kirkland T.N., *et al*. (1998) *Prog Clin Biol Res.* **397**: 79–87

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