

Anti-CD14 Picoband Antibody

Catalog # ABO12806

Product Information

Application	WB, IHC-P, E
Primary Accession	Cd14: P10810
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for CD14 detection. Tested with WB, IHC-P, ELISA(Cap) in Mouse;Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Application Details	Western blot, 0.1-0.5 µg/ml Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml ELISA(Cap), 0.1-0.5 µg/ml
Subcellular Localization	Cell membrane
Tissue Specificity	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).
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived mouse CD14 recombinant protein (Position: S16-A260).
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Background

CD14 is a single-copy gene encoding 2 protein forms: a 50- to 55-kD glycosylphosphatidylinositol-anchored membrane protein (mCD14) and a monocyte or liver-derived soluble serum protein (sCD14) that lacks the

anchor. This gene is located at bands 5q23-q31. The protein encoded by this gene is a surface antigen that is preferentially expressed on monocytes/macrophages. CD14 acts as a co-receptor (along with the Toll-like receptor TLR 4 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.

Images

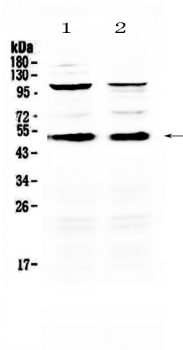


Figure 1. Western blot analysis of CD14 using anti-CD14 antibody (ABO12806). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: mouse thymus tissue lysates, Lane 2: mouse spleen tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CD14 antigen affinity purified polyclonal antibody (Catalog # ABO12806) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CD14 at approximately 50KD. The expected band size for CD14 is at 40KD.

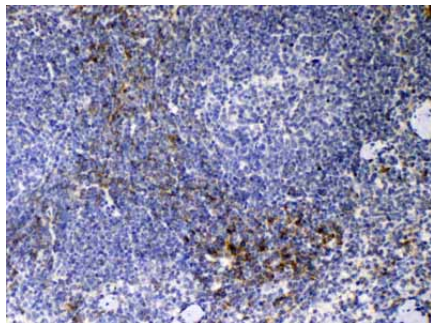


Figure 2. IHC analysis of CD14 using anti-CD14 antibody (ABO12806). CD14 was detected in paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CD14 Antibody (ABO12806) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

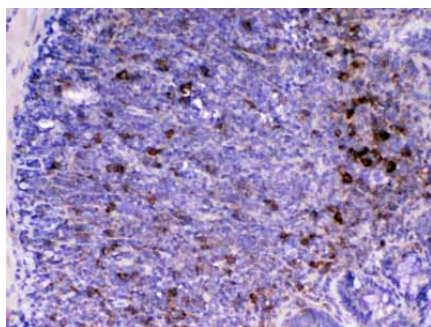
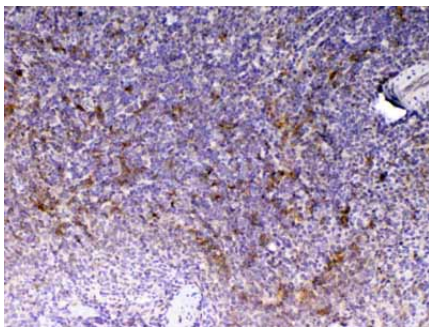


Figure 3. IHC analysis of CD14 using anti-CD14 antibody (ABO12806). CD14 was detected in paraffin-embedded section of rat lymphaden tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CD14 Antibody (ABO12806) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Figure 4. IHC analysis of CD14 using anti-CD14 antibody (ABO12806). CD14 was detected in paraffin-embedded section of rat spleen tissue. Heat mediated antigen



retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CD14 Antibody (AB012806) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.