Overview

Product name: Anti-CD14 antibody [EPR3653]

Description: Rabbit monoclonal [EPR3653] to CD14

Host species: Rabbit

Tested applications: Suitable for: WB, IHC-P

Species reactivity: Reacts with: Human

Immunogen: Synthetic peptide within Human CD14 aa 300-400. The exact sequence is proprietary.

Positive control: IHC-P: human colon, placenta and tonsil tissue; WB: Human tonsil tissue lysate, SW480 and PBMCI lysates.

General notes: Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

This product is a recombinant monoclonal antibody, which offers several advantages including:
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

Properties

Form: Liquid

Dissociation constant ($K_D$)  

$K_D = 4.70 \times 10^{-12} \text{ M}$

Storage buffer  

- pH: 7.40
- Preservative: 0.01% Sodium azide
- Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

Purity  

Protein A purified

Clonality  

Monoclonal

Clone number  

EPR3653

Isotype  

IgG

Applications

Our Abpromise guarantee covers the use of ab133335 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<td>WB</td>
<td></td>
<td>1/1000 - 1/5000.detects a band of approximately 53 kDa (predicted molecular weight: 40 kDa).</td>
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Target

Function  

Cooperates with MD-2 and TLR4 to mediate 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.

Tissue specificity  

Expressed strongly on the surface of monocytes and weakly on the surface of granulocytes; also expressed by most tissue macrophages.

Sequence similarities  

Contains 11 LRR (leucine-rich) repeats.

Post-translational modifications  

N- and O- glycosylated. O-glycosylated with a core 1 or possibly core 8 glycan.

Cellular localization  

Cell membrane.

Images
Anti-CD14 antibody [EPR3653] (ab133335) at 1/1000 dilution (purified) + His-Tagged Human CD14 (aa20 to 345) recombinant protein at 0.015 µg

**Secondary**
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size:** 40 kDa  
**Observed band size:** 43 kDa  
why is the actual band size different from the predicted?

**Exposure time:** 1 second

Blocking and diluting buffer: 5% NFDM/TBST

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue sections labeling CD14 with purified ab133335 at 1/2000 dilution (0.04 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody.  
Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
**Western blot - Anti-CD14 antibody [EPR3653]**

**All lanes**: Anti-CD14 antibody [EPR3653] (ab133335) at 1/1000 dilution

**Lane 1**: Human tonsil lysates prepared in RIPA lysis method

**Lane 2**: Human tonsil lysates prepared in 1% SDS Hot lysis method

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

**Predicted band size**: 40 kDa

**Exposure time**: 45 seconds

Blocking/Diluting buffer and concentration: 5% NFDM/TBST
**Western blot - Anti-CD14 antibody [EPR3653] (ab133335)**

All lanes: Anti-CD14 antibody [EPR3653] (ab133335) at 1/1000 dilution (purified)

**Lane 1**: Human tonsil tissue lysate prepared in 1% SDS Hot lysis method

**Lane 2**: HeLa (Human cervix adenocarcinoma) whole cell lysate

**Lane 3**: U-937 (Human histiocytic lymphoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**Lane 1**: Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

**Lanes 2-3**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size**: 40 kDa

**Observed band size**: 53 kDa why is the actual band size different from the predicted?

**Exposure time**: 3 minutes

Blocking and diluting buffer: 5% NFDM/TBST

The expression level in HeLa and U-937 are low (PMID: 9886426 and 15730927)

Immunohistochemical analysis of Formalin-fixed, paraffin-embedded human tonsil tissue labelling CD14 with ab133335 (unpurified) at 1/500 dilution. No blocking step performed. Anti-Rabbit HRP polymer was used as the secondary detection system. Heat-mediated antigen retrieval was performed using EDTA based pH 9.0 buffer.
Immunohistochemical analysis of Formalin-fixed, paraffin-embedded Human tonsil tissue labelling CD14 with ab133335 (unpurified) at 1/500 dilution. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

Immunohistochemical analysis of Formalin-fixed, paraffin-embedded Human placenta tissue labelling CD14 with ab133335 (unpurified) at 1/500 dilution. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

**Western blot** - Anti-CD14 antibody [EPR3653] (ab133335)

All lanes: Anti-CD14 antibody [EPR3653] (ab133335) at 1/1000 dilution (unpurified)

Lane 1: PBMC cell lysate prepared in 1% SDS Hot lysis method

Lane 2: Human tonsil tissue lysate prepared in 1%SDS Hot lysis method

Lane 3: SW480 cell lysate prepared in 1%SDS Hot lysis method

Lysates/proteins at 10 µg per lane.

**Secondary**

All lanes: Goat Anti-rabbit HRP at 1/2000 dilution

**Predicted band size:** 40 kDa

**Observed band size:** 53 kDa. Why is the actual band size different from the predicted?
Equilibrium disassociation constant ($K_D$)

Learn more about $K_D$

Click here to learn more about $K_D$

Other - Anti-CD14 antibody [EPR3653] (ab133335)

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