abcam

Product datasheet

Anti-CD14 antibody [EPR3653] ab133335

Recombinant RabMAb

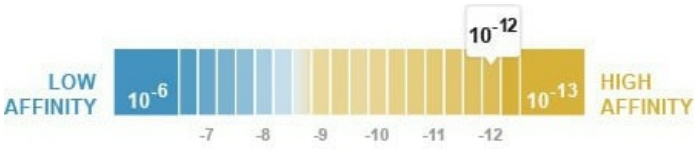
4.5 1 Abreviews 22 References 11 Images

Overview

Product name	Anti-CD14 antibody [EPR3653]
Description	Rabbit monoclonal [EPR3653] to CD14
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: human colon, placenta and tonsil tissue; WB: Human tonsil tissue lysate, SW480 and PBMCl lysates.
General notes	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**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Dissociation constant (K_D)	$K_D = 4.70 \times 10^{-12}$ M



Learn more about K_D

Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR3653
Isotype	IgG

Applications

The Abpromise guarantee 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.

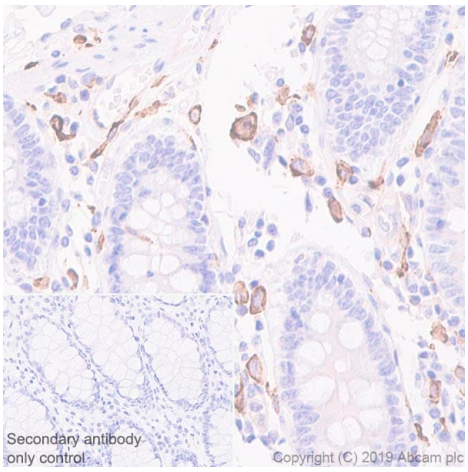
Application	Abreviews	Notes
WB		1/1000 - 1/5000. Detects a band of approximately 53 kDa (predicted molecular weight: 40 kDa).
IHC-P	★★★★☆ (1)	1/2000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. **For unpurified use at 1/500 - 1/1000.**

Application notes Is unsuitable for ICC/IF.

Target

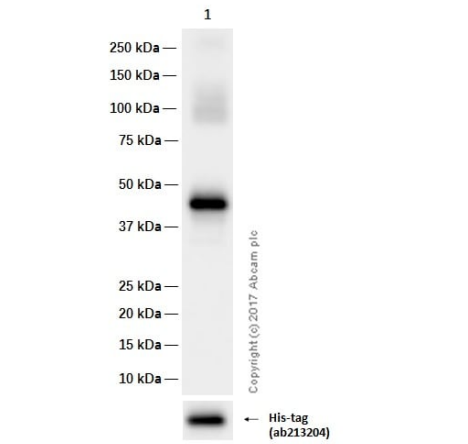
Function	Cooperates with MD-2 and TLR4 to mediate the innate immune response to bacterial lipopolysaccharide (LPS). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. Up-regulates cell surface molecules, including adhesion molecules.
Tissue 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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD14 antibody [EPR3653] (ab133335)

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] (ab133335)

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

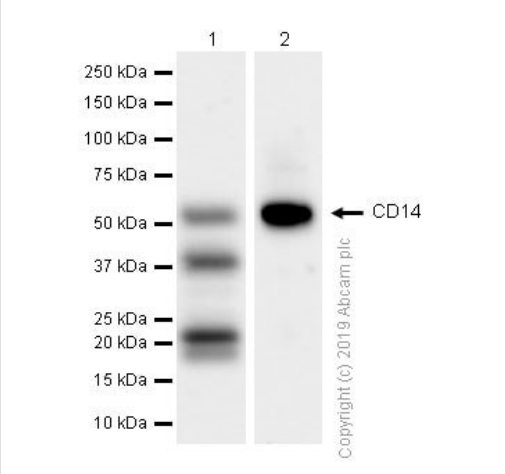
Secondary

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

Predicted band size: 40 kDa
Observed band size: 43 kDa

Exposure time: 1 second

Blocking and diluting buffer: 5% NFDM/TBST



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

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

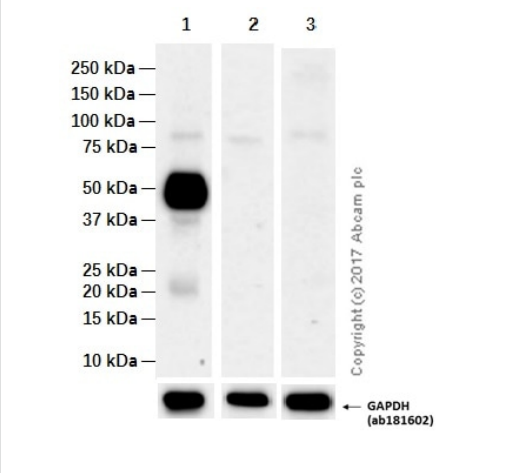
Lysates/proteins at 20 µg per lane.

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

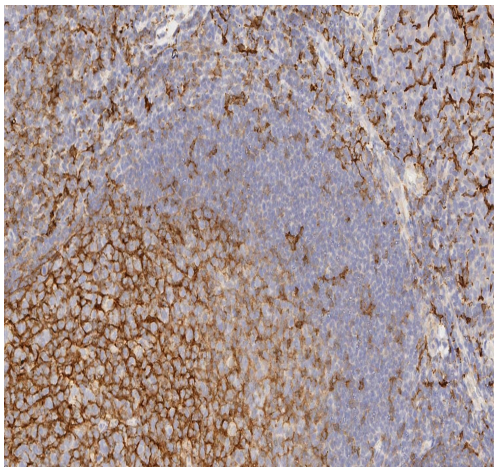
1/20000 dilution

Predicted band size: 40 kDa
Observed band size: 53 kDa

Exposure time: 3 minutes

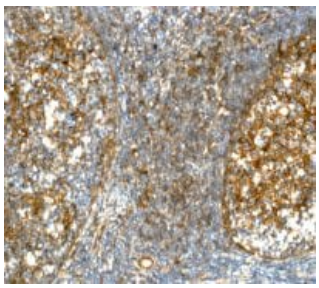
Blocking and diluting buffer: 5% NFDM/TBST

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



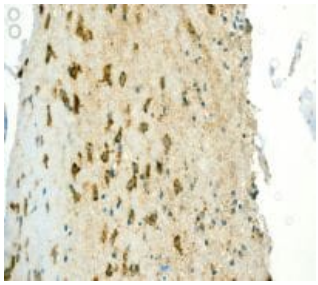
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD14 antibody [EPR3653] (ab133335)

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.



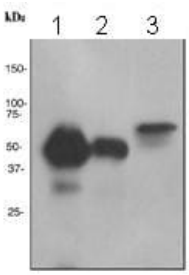
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD14 antibody [EPR3653] (ab133335)

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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD14 antibody [EPR3653] (ab133335)

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)

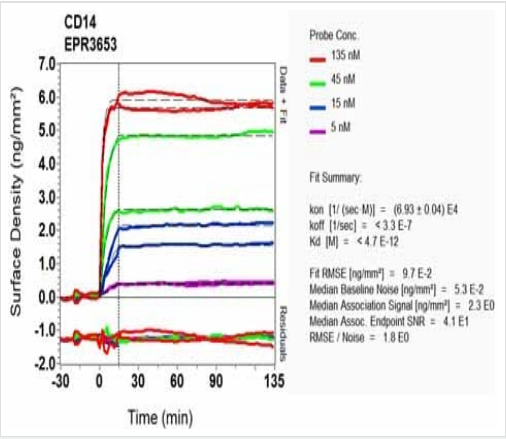
All lanes : Anti-CD14 antibody [EPR3653] (ab133335) at 1/1000 dilution (unpurified)

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

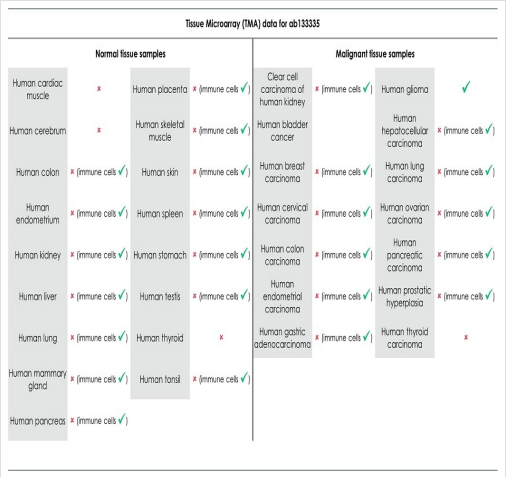


OI-RD Scanning - Anti-CD14 antibody [EPR3653] (ab133335)

Equilibrium disassociation constant (K_D)

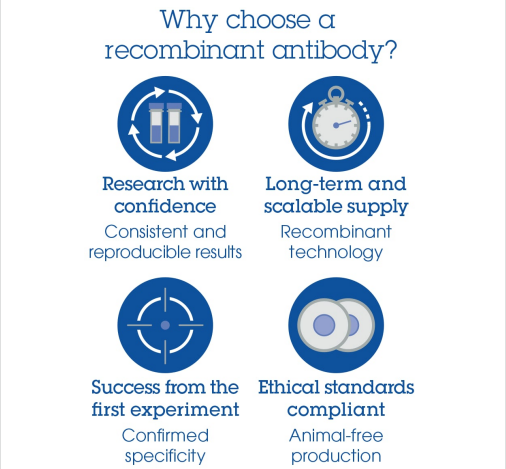
Learn more about K_D

Click here to learn more about K_D



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD14 antibody [EPR3653] (ab133335)

Tissue Microarrays stained for "Anti-CD14 antibody [EPR3653]" using "ab133335" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. The sections were incubated with ab133335 for 30 mins at room temperature followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Anti-CD14 antibody [EPR3653] (ab133335)

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