abcam

ab133335

Anti-CD14 antibody [EPR3653]

Anti-CD14 antibody [EPR3653] (ab133335) is a rabbit monoclonal antibody detecting CD14 in **Western Blot, IHC-P**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 20 publications

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR3653
Purification technique	Affinity purification Protein A
Dissociation constant	4.7×10^{-12} M
Concentration	0.036 - 0.091 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/2000
Notes	**For unpurified use at 1/500 - 1/1000.** Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

WB

Tested

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

Target data

See full target information CD14

Function

Coreceptor for bacterial lipopolysaccharide (PubMed:1698311, PubMed:23264655). In concert with LBP, binds to monomeric lipopolysaccharide and delivers it to the LY96/TLR4 complex, thereby mediating the innate immune response to bacterial lipopolysaccharide (LPS) (PubMed:20133493, PubMed:22265692, PubMed:23264655). Acts via MyD88, TIRAP and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (PubMed:8612135). Acts as a coreceptor for TLR2:TLR6 heterodimer in response to diacylated lipopeptides and for TLR2:TLR1 heterodimer in response to triacylated lipopeptides, these clusters trigger signaling from the cell surface and subsequently are targeted to the Golgi in a lipid-raft dependent pathway (PubMed:16880211). Binds electronegative LDL (LDL(-)) and mediates the cytokine release induced by LDL(-) (PubMed:23880187).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Product Specifications
Anti-CD14 antibody [EPR3653] (ab133335) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in IHC-P, WB in human samples.
Anti-CD14 antibody [EPR3653] (ab133335) specifically detects CD14 (UniProt ID: P08571; Molecular weight: 37kDa) and is sold in a convenient trial size to enable initial testing (20 µL) and larger sizes for subsequent scaling up experiments (100 µL and 1 mL).

Quality and Validation
Abcam's high quality manufacturing and validation processes ensure Anti-CD14 antibody [EPR3653] (ab133335) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.
Anti-CD14 antibody [EPR3653] (ab133335) has been cited over 27 times in peer reviewed journals and is trusted by the scientific community.

Related Products
Antibody clone EPR3653 is also available pre-conjugated to a variety of labels for your convenience - HRP, Alexa Fluor® 594 (ab195525, ab314340).

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

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

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

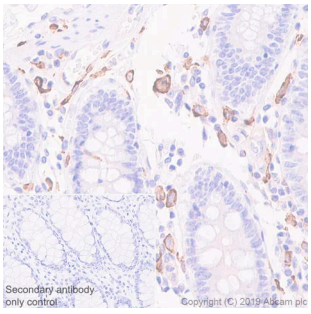
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

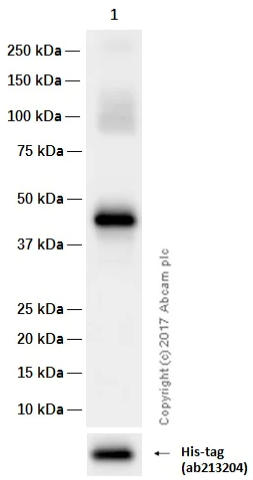
Full details and terms and conditions can be found here:
Terms & Conditions.

10 product 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)

Blocking and diluting buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-CD14 antibody [EPR3653] (ab133335) at 1/1000 dilution

All lanes:
His-Tagged Human CD14 (aa20 to 345) recombinant protein at 0.015 µg

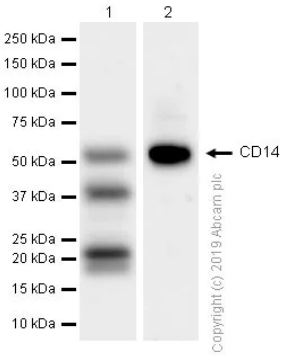
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 40 kDa

Observed band size: 43 kDa

Exposure time: 1s



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

Blocking/Diluting buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-CD14 antibody [EPR3653] (ab133335) at 1/1000 dilution

Lane 1:
Human tonsil lysates prepared in RIPA lysis method at 20 µg

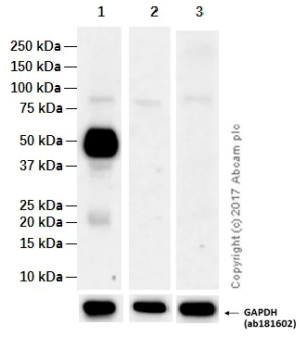
Lane 2:
Human tonsil lysates prepared in 1%SDS Hot lysis method at 20 µg

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: 45s



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

Blocking and diluting buffer: 5% NFDM/TBST
The expression level in HeLa and U-937 are low (PMID: 9886426 and 15730927)

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

Lane 1:
Human tonsil tissue lysate prepared in 1% SDS Hot lysis method at 20 µg

Lane 2:
HeLa (Human cervix adenocarcinoma) whole cell lysate at 20 µg

Lane 3:
U-937 (Human histiocytic lymphoma) whole cell lysate at 20 µg

Secondary

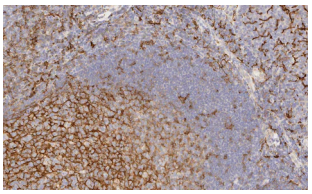
Lane 1:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

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

Predicted band size: 40 kDa

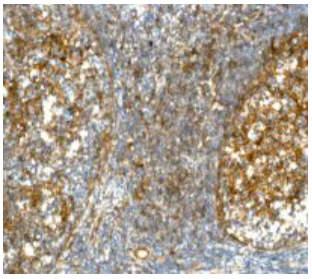
Observed band size: 53 kDa

Exposure time: 3min



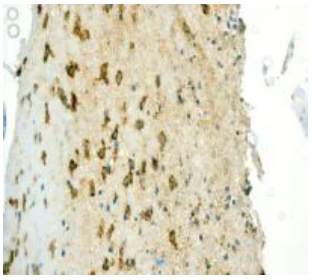
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD14 antibody [EPR3653] (ab133335)

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.



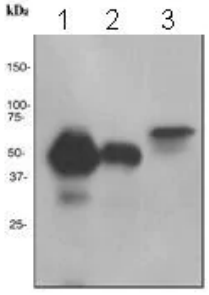
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD14 antibody [EPR3653] (ab133335)

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:
Western blot - Anti-CD14 antibody [EPR3653] (ab133335) at 1/1000 dilution

Lane 1:
PBMC cell lysate prepared in 1% SDS Hot lysis method at 10 µg

Lane 2:
Human tonsil tissue lysate prepared in 1%SDS Hot lysis method at 10 µg

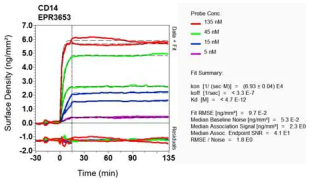
Lane 3:
SW480 cell lysate prepared in 1%SDS Hot lysis method at 10 µg

Secondary

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

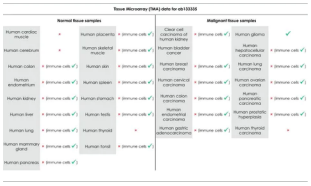
Predicted band size: 40 kDa

Observed band size: 53 kDa



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

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.



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.