abcam

Product datasheet

Anti-RAGE antibody ab37647

12 Abreviews 70 References 6 Images

Overview

Product name	Anti-RAGE antibody
Description	Rabbit polyclonal to RAGE
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, WB, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Cow, Human
Immunogen	Synthetic peptide: KGAPKKPPQRLEWKLNTGRTC , corresponding to amino acids 39-58 of Human RAGE Run BLAST with Run BLAST with
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.1% Sodium azide Constituents: 50% Glycerol, PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab37647 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
ICC/IF	★★★★★ (4)	Use a concentration of 1 µg/ml.
WB	★★★★☆ (6)	1/1000 - 1/5000. Detects a band of approximately 42 kDa (predicted molecular weight: 42 kDa).
Flow Cyt	★★★★☆ (1)	Use 1µg for 10^6 cells. Use PBS/EDTA to detach cells to preserve the glycoproteins on the cell surface; do not fix, do not permeabilise.

Target

Function

Mediates interactions of advanced glycosylation end products (AGE). These are nonenzymatically glycosylated proteins which accumulate in vascular tissue in aging and at an accelerated rate in diabetes. Acts as a mediator of both acute and chronic vascular inflammation in conditions such as atherosclerosis and in particular as a complication of diabetes. AGE/RAGE signaling plays an important role in regulating the production/expression of TNF-alpha, oxidative stress, and endothelial dysfunction in type 2 diabetes. Interaction with S100A12 on endothelium, mononuclear phagocytes, and lymphocytes triggers cellular activation, with generation of key proinflammatory mediators. Interaction with S100B after myocardial infarction may play a role in myocyte apoptosis by activating ERK1/2 and p53/TP53 signaling (By similarity). Receptor for amyloid beta peptide. Contributes to the translocation of amyloid-beta peptide (ABPP) across the cell membrane from the extracellular to the intracellular space in cortical neurons. ABPP-initiated RAGE signaling, especially stimulation of p38 mitogen-activated protein kinase (MAPK), has the capacity to drive a transport system delivering ABPP as a complex with RAGE to the intraneuronal space.

Tissue specificity

Endothelial cells.

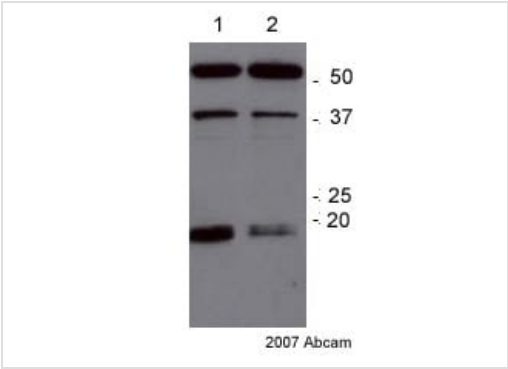
Sequence similarities

Contains 2 Ig-like C2-type (immunoglobulin-like) domains.
Contains 1 Ig-like V-type (immunoglobulin-like) domain.

Cellular localization

Secreted and Cell membrane.

Images



Western blot - Anti-RAGE antibody (ab37647)

This image is courtesy of an anonymous Abreview

All lanes : Anti-RAGE antibody (ab37647) at 1/500 dilution

Lane 1 : HUVEC whole cell lysate

Lane 2 : EVC304 whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : HRP conjugated goat anti-rabbit

Developed using the ECL technique.

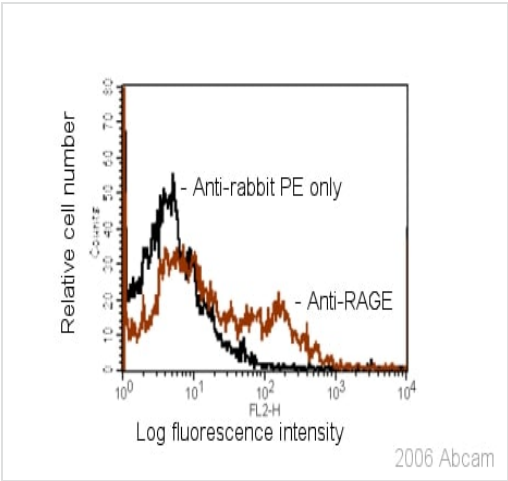
Performed under reducing conditions.

Predicted band size: 42 kDa

Observed band size: 17,40 kDa

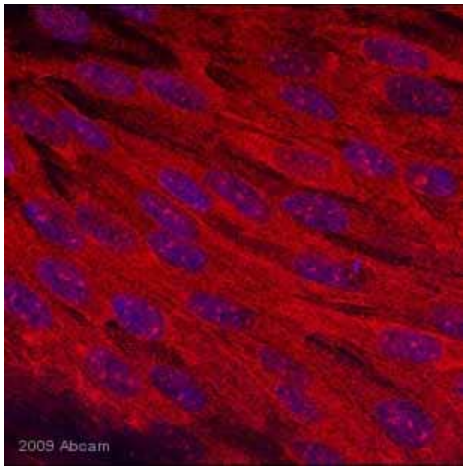
Exposure time: 4 minutes

The band at 52kDa is a tubulin loading control.



Flow Cytometry - Anti-RAGE antibody (ab37647)

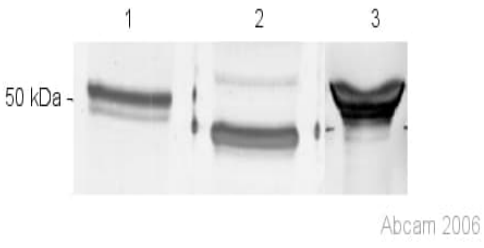
RAW 264.7 cells were stained with anti-RAGE (1ug/million cells) for 1hr at 4 deg C followed by staining with anti-rabbit IgG-PE conjugate. Cells were analyzed by flow cytometry. Unstained cells or cells stained with secondary antibody alone are represented in the background



Immunocytochemistry/ Immunofluorescence - Anti-RAGE antibody (ab37647)

This image was kindly supplied by Dr Fabien Gosselet by Abreview

ab37647 at a 1/100 dilution staining RAGE in bovine endothelial cells by Immunocytochemistry/ Immunofluorescence. Fixed in PFA, permeabilized with Triton X-100. Blocked using 10% serum for 20 minutes at room temperature. Secondary used at 1/200 polyclonal Goat snti-rabbit conjugated to Alexa Fluor 568 (red). Nuclear staining (blue).



Western blot - Anti-RAGE antibody (ab37647)

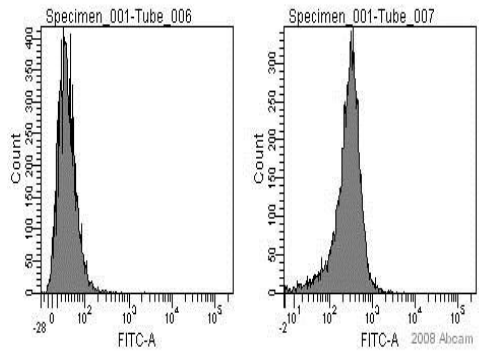
All lanes : Anti-RAGE antibody (ab37647) at 1/2000 dilution

Lane 1 : Bovine lung extract
Lane 2 : Mouse lung extract
Lane 3 : HeLa cells expressing human soluble RAGE

Secondary
All lanes : anti-rabbit IgG alkaline phosphatase conjugate

Predicted band size: 42 kDa
Observed band size: 42 kDa

Bovine RAGE is slightly larger than human and mouse RAGE - 44kDa compared with 42kDa

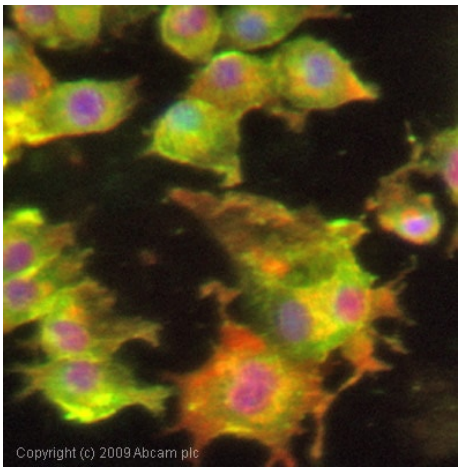


Flow Cytometry - Anti-RAGE antibody (ab37647)

This image is courtesy of an anonymous Abreview

ab37647 staining human Jurkat T cells by Flow Cytometry. The cells were prepared in PBS with 0.2% BSA. The primary antibody diluted 1/100 and incubated with sample for 30 minutes at 0°C. The secondary antibody was Alexa Fluor® 488 conjugated goat polyclonal to rabbit IgG, diluted 1/200.

Specimen tube 006 is negative control



Immunocytochemistry/ Immunofluorescence - Anti-RAGE antibody (ab37647)

ICC/IF image of ab37647 stained PC12 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab37647, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors