abcam

Product datasheet

Anti-RAGE antibody ab3611

16 Abreviews 148 References 5 Images

Overview

Product name	Anti-RAGE antibody
Description	Rabbit polyclonal to RAGE
Host species	Rabbit
Specificity	By Western blot, this antibody detects two bands in the 45 kDa range representing the RAGE protein pre and post glycosylation in Mouse lung extract. This antibody also detects an ~25 kDa protein that is believed to be proteolytic degradation product. Immunohistochemical staining of RAGE in transgenic Mouse retina results in staining of the retinal pigmented epithelium and photo receptor cell layers.
Tested applications	**Suitable for:** IHC-Fr, WB, IHC-P
Species reactivity	**Reacts with:** Mouse
Immunogen	Synthetic peptide corresponding to Rat RAGE aa 350-450. Run BLAST with ExPASy Run BLAST with NCBI
Positive control	WB: Mouse lung tissue lysate. IHC-P: Mouse lymph node, kidney and heart tissues. IHC-Fr: Transgenic mouse retina.
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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab3611 in the following tested applications.

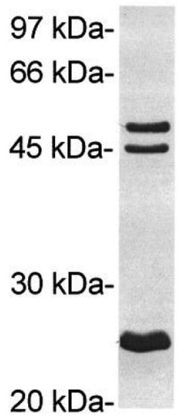
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr	★★★★★ (1)	Use a concentration of 1 - 2 µg/ml.
WB	★★★★☆ (6)	Use a concentration of 1 µg/ml. Detects a band of approximately 45 kDa (predicted molecular weight: 42.6 kDa).
IHC-P	★★★★☆ (1)	1/10 - 1/100.

Target

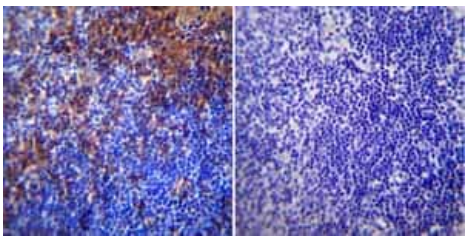
Function	Mediates interactions of advanced glycosylation end products (AGE). These are nonenzymatically glycosylated proteins which accumulate in vascular tissue in aging and at an accelerated rate in diabetes. Acts as a mediator of both acute and chronic vascular inflammation in conditions such as atherosclerosis 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



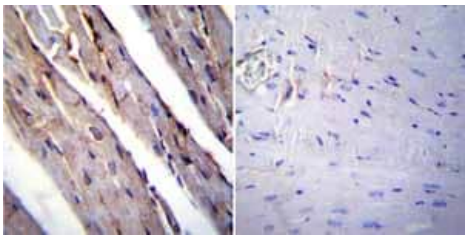
Western blot - Anti-RAGE antibody (ab3611)

ab3611 at a 2µg/ml concentration staining ~ 45 kDa RAGE in mouse lung lysate by Western blot (ECL).This antibody detects two bands in the 45 kDa range representing the RAGE protein pre and post-glycosylation in mouse lung extract. This antibody also detects an ~25 kDa protein that is believed to be proteolytic degradation product.



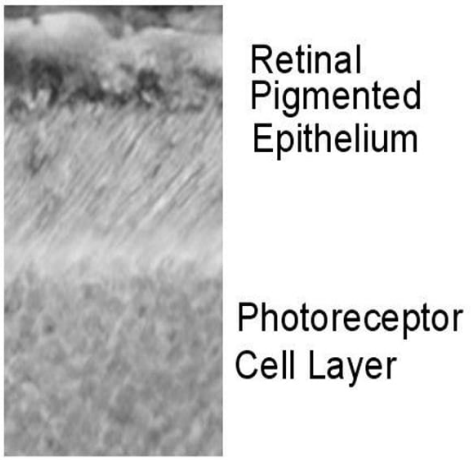
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RAGE antibody (ab3611)

Immunohistochemistry was performed on normal biopsies of deparaffinized Mouse lymph node tissue . To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:20 with a rabbit polyclonal antibody recognizing RAGE ab3611 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



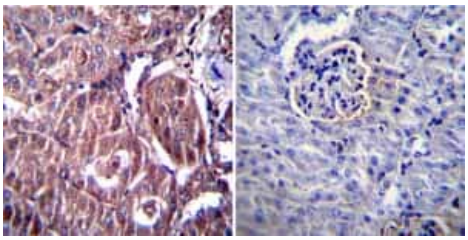
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RAGE antibody (ab3611)

Immunohistochemistry was performed on normal biopsies of deparaffinized Mouse heart tissue. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:20 with a rabbit polyclonal antibody recognizing RAGE ab3611 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Immunohistochemistry (Frozen sections) - Anti-RAGE antibody (ab3611)

Ab3611 used in IHC (frozen) in transgenic mouse retinas.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RAGE antibody (ab3611)

Immunohistochemistry was performed on normal biopsies of deparaffinized Mouse kidney tissue. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:20 with a rabbit polyclonal antibody recognizing RAGE ab3611 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with

hematoxylin and prepped for mounting.

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