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Datasheet for 600-401-P67

AGER/RAGE Antibody

Overview

Description:	Anti-AGER/RAGE (RABBIT) Antibody - 600-401-P67
Item No.:	600-401-P67
Size:	100 µg
Applications:	IHC, WB, IF
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	The receptor for advanced glycation end products (RAGE) is a multi-ligand member of the immunoglobulin superfamily of cell surface molecules. It interacts with distinct molecules implicated in homeostasis, development and inflammation, and certain diseases such as diabetes and Alzheimer's disease. RAGE is also a central cell surface receptor for amphoterin and EN-RAGE. RAGE is associated with sustained NF-kappaB activation in the diabetic microenvironment and has a central role in sensory neuronal dysfunction. Moreover, RAGE propagates cellular dysfunction in several inflammatory disorders and diabetes, and it also functions as an endothelial adhesion receptor promoting leukocyte recruitment. This antibody is suitable for researchers interested in neuroscience research.
Synonyms:	Receptor for advanced glycosylation end products,
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	AGER
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	AGER/RAGE affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region of human RAGE.
Purity/Specificity:	Anti-RAGE antibody is directed against human RAGE protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human, mouse, and rat based on homology for the immunogen sequence. Cross reactivity with RAGE from other sources has not been determined.
Relevant Links:	• UniProtKB - Q15109 • GeneID - 177 • NCBI - NP_001127.1

Application Details

Tested Applications:	IHC, WB
Suggested Applications:	IF (Based on references)
Application Note:	Anti-RAGE is tested for Immunohistochemistry-P, Immunohistochemistry-F, and Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~42.8 kDa corresponding to the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IHC:	1:100-1:500
WB:	0.5 µg/mL

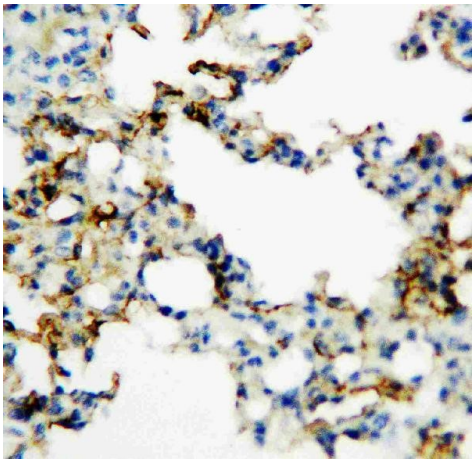
Formulation

Physical State:	Lyophilized
Concentration:	0.5 mg/mL by UV absorbance at 280 nm
Buffer:	0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3
Preservative:	0.05mg Thimerosal
Stabilizer:	5mg BSA
Reconstitution Volume:	250 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

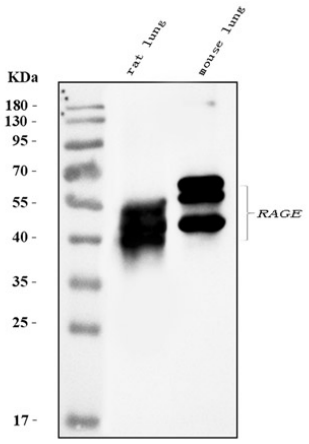
Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

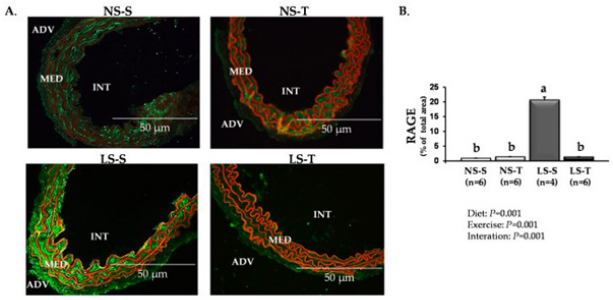


Immunohistochemistry
Immunohistochemistry of Anti-RAGE antibody.
Tissue: Rat Lung Tissue. IHC(P).



Western Blot

Western blot analysis of RAGE using anti-RAGE antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30µg of sample under reducing conditions.
Lane 1: rat lung tissue lysates, Lane 2: mouse lung tissue lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with affinity purified rabbit anti-RAGE antigen polyclonal antibody at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for RAGE at approximately 43 kDa. The expected band size for RAGE is at 43 kDa.



Immunofluorescence Microscopy

Vascular receptor for advanced glycation end products (RAGE) in LDLR KO mice fed either a normal-sodium (NS) or a low-sodium (LS) diet, trained (T) or sedentary (S), after 90 days. (A) Representative micrographs of immunofluorescence-stained RAGE in the brachiocephalic trunk. The green immunostaining indicates the RAGE expression. (B) Histomorphometric analysis of immunofluorescence-stained RAGE. ADV, adventitia; MED, media; INT, intima (400×). Red staining indicates counterstaining by 0.006% Evans blue dye. Two-way ANOVA test with two fixed factors (diet and exercise) and Tukey's post-test were applied for comparisons among data. Results are expressed as mean ± standard deviation. Distinct letters represent differences among groups ($p < 0.05$). n = number of mice. Fig 3. PMID: 36290746

References

- Bochi APG et al. Aerobic Exercise Training Reduces Atherogenesis Induced by Low-Sodium Diet in LDL Receptor Knockout Mice. *Antioxidants (Basel).* (2022)

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