BOSTER BIOLOGICAL TECHNOLOGY
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Anti-RAGE/AGER Antibody Picoband®

Catalog Number: A03438-1

About AGER

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. And 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.

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Overview

Product Name	Anti-RAGE/AGER Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-RAGE/AGER Antibody Picoband® catalog # A03438-1. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	Q15109

Technical Details

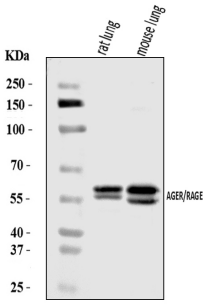
Immunogen	E.coli-derived human RAGE/AGER recombinant protein (Position: K43-P404).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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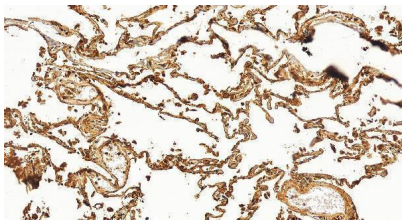
	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human ELISA, 0.1-0.5 ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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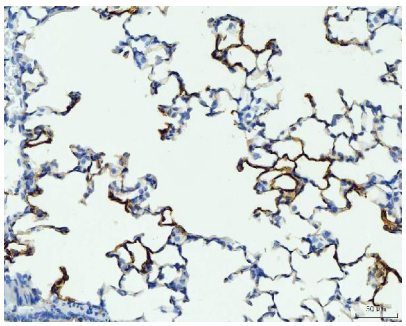
Anti-RAGE/AGER Antibody Picoband® (A03438-1) Images



Western blot analysis of RAGE/AGER using anti-RAGE/AGER antibody (A03438-1). 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 30 ug 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 rabbit anti-RAGE/AGER antigen affinity purified polyclonal antibody (Catalog # A03438-1) at 0.5 ug/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 a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for RAGE/AGER at approximately 45-58 kDa. The expected band size for RAGE/AGER is at 43 kDa.



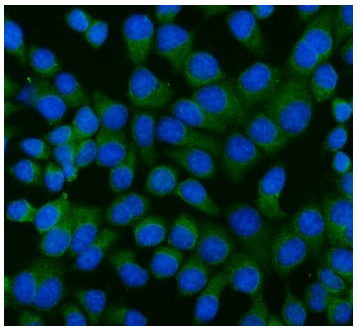
IHC analysis of RAGE/AGER using anti-RAGE/AGER antibody (A03438-1). RAGE/AGER was detected in a paraffin-embedded section of human lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-RAGE/AGER Antibody (A03438-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



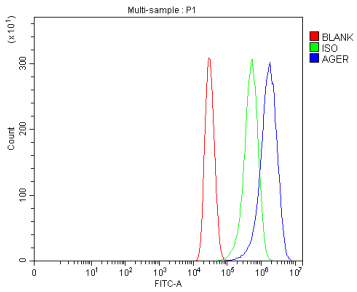
IHC analysis of RAGE/AGER using anti-RAGE/AGER antibody (A03438-1). RAGE/AGER was detected in a paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-RAGE/AGER Antibody (A03438-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IF analysis of RAGE/AGER using anti-RAGE/AGER antibody (A03438-1). RAGE/AGER was detected in an immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with

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10% goat serum. And then incubated with 5 ug/mL rabbit anti-RAGE/AGER Antibody (A03438-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of MCF-7 cells using anti-RAGE/AGER antibody (A03438-1). Overlay histogram showing MCF-7 cells stained with A03438-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-RAGE/AGER Antibody (A03438-1, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

2 Publications Citing This Product

1. PubMed ID: 10.1016/j.jep.2013.11.015, The anti-inflammation effect of Moutan Cortex on advanced glycation end products-induced rat mesangial cells dysfunction and High-glucose–fat diet and streptozotocin-induced diabetic nephropathy rats

2. PubMed ID: 23219582, Feng L, Zhu M, Zhang M, Jia X, Cheng X, Ding S, Zhu Q. Int Immunopharmacol. 2013 Feb;15(2):206-16. Doi: 10.1016/J.Intimp.2012.11.015. Epub 2012 Dec 5. Amelioration Of Compound 4,4'-Diphenylmethane-Bis(Methyl)Carbamate On High Mobility Group Box1-M...

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