BOSTER
antibody and ELISA experts

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Anti-RAGE/AGER Antibody Picoband™ (monoclonal, 5C6C1)

Catalog Number: M03438-2

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.

Overview

Product Name	Anti-RAGE/AGER Antibody Picoband™ (monoclonal, 5C6C1)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-RAGE/AGER Antibody Picoband™ (monoclonal, 5C6C1) catalog # M03438-2. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IHC, WB
Clonality	Monoclonal 5C6C1
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 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	Mouse
Uniprot ID	Q15109

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human RAGE, different from the related mouse and rat sequences by six amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	IgG2b
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.

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Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.25-0.5 μg/ml, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 μg/ml, Mouse, Rat Flow Cytometry, 1-3 μg/1x10^6 cells, Human

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Anti-RAGE/AGER Antibody Picoband™ (monoclonal, 5C6C1) (M03438-2) Images

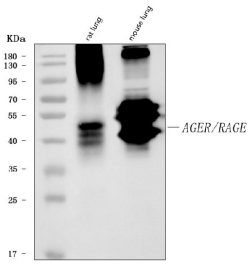

Figure 1. Western blot analysis of RAGE/AGER using anti-RAGE/AGER antibody (M03438-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: rat lung 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 mouse anti-RAGE/AGER antigen affinity purified monoclonal antibody (Catalog # M03438-2) 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-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for RAGE/AGER at approximately 43 kDa. The expected band size for RAGE/AGER is at 43 kDa.

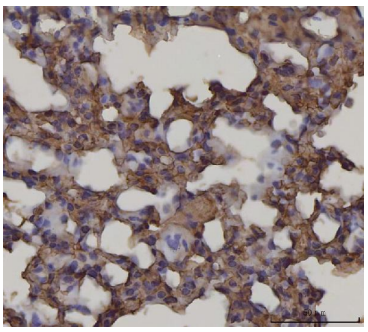

Figure 2. IHC analysis of RAGE/AGER using anti-RAGE/AGER antibody (M03438-2).
RAGE/AGER was detected in a paraffin-embedded section of mouse lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-RAGE/AGER Antibody (M03438-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

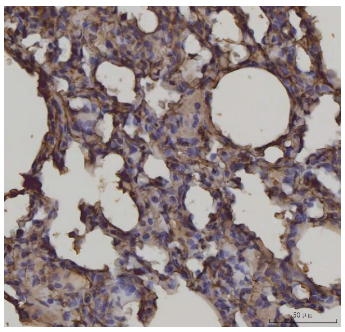

Figure 3. IHC analysis of RAGE/AGER using anti-RAGE/AGER antibody (M03438-2).
RAGE/AGER was detected in a paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-RAGE/AGER Antibody (M03438-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

Figure 4. IHC analysis of RAGE/AGER using anti-RAGE/AGER

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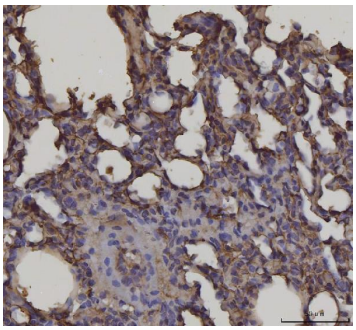

antibody (M03438-2).
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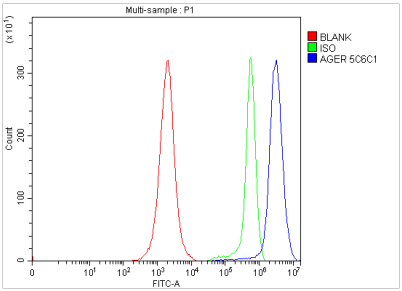

Figure 5. Flow Cytometry analysis of Jurkat cells using anti-RAGE/AGER antibody (M03438-2).
Overlay histogram showing Jurkat cells stained with M03438-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-RAGE/AGER Antibody (M03438-2, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-RAGE/AGER Antibody (monoclonal, 5C6C1)