

Anti-RAGE/AGER Antibody Picoband™

Catalog Number: PB9469

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

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| Product Name | Anti-RAGE/AGER Antibody Picoband™ |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-RAGE/AGER Antibody Picoband™ catalog # PB9469. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. |
| Application | IHC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ . |
| Storage Instructions | Store 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 freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | Q15109 |

Technical Details

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| 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. |
| Predicted Reactive Species | Hamster |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P). |
| 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. |

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| Purification | Immunogen affinity purified. |
| Suggested Dilutions | <p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat</p> <p>Western blot, 0.1-0.5ug/ml, Human, Rat</p> |

Anti-RAGE/AGER Antibody Picoband™ (PB9469) Images

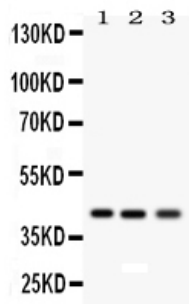


Figure 1. Western blot analysis of RAGE using anti-RAGE antibody (PB9469). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: Rat Lung Tissue Lysate at 50ug, Lane 2: RH35 Whole Cell Lysate at 40ug, Lane 3: HELA Whole Cell Lysate at 40ug. 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 antigen affinity purified polyclonal antibody (Catalog # PB9469) 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 at approximately 45-58 kDa. The expected band size for RAGE is at 43 kDa.

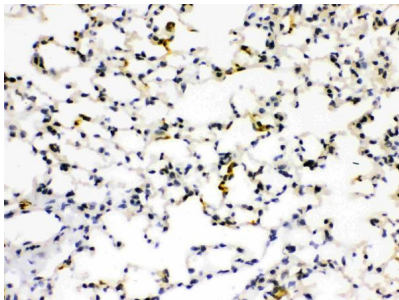


Figure 2. IHC analysis of RAGE using anti-RAGE antibody (PB9469). RAGE was detected in a paraffin-embedded section of mouse lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-RAGE Antibody (PB9469) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

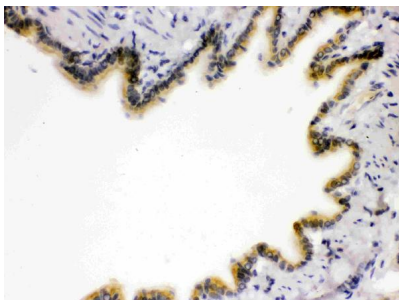
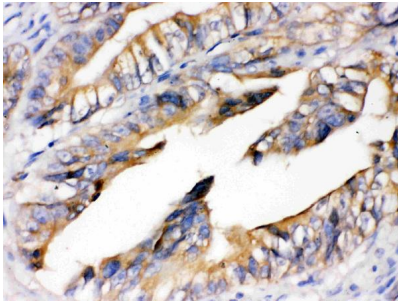


Figure 3. IHC analysis of RAGE using anti-RAGE antibody (PB9469). RAGE was detected in a paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-RAGE Antibody (PB9469) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of RAGE using anti-RAGE antibody (PB9469). RAGE was detected in a paraffin-embedded section of human intestinal cancer 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 1 ug/ml rabbit anti-RAGE Antibody (PB9469) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

7 Publications Citing This Product

1. PubMed ID: 27026909, Ethyl pyruvate attenuated coxsackievirus B3-induced acute viral myocarditis by suppression of HMGB1/RAGE/NF-?B pathway
2. PubMed ID: 28486941, Wang F, He Q, Wang J, Yuan Q, Guo H, Chai L, Wang S, Hu L, Zhang Y. BMC Complement Altern Med. 2017 May 10;17(1):258. doi: 10.1186/s12906-017-1738-8. Neuroprotective effect of salvianolate lyophilized injection against cerebral ischemia in type 1 ...
3. PubMed ID: 28223765, Li JY, Lu YH, Zhang LW, Zhou PM, Chen T. Ann Dermatol. 2017 Feb;29(1):121-123. doi: 10.5021/ad.2017.29.1.121. Epub 2017 Feb 3. Increased Serum High Mobility Group Box 1 (HMGB1) Concentration and the Altered Expression of HMGB1 and Its Receptor Adv...

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