bs-4999R **[Primary Antibody]**

RAGE Rabbit pAb

www.bioss.com.cn
sales@bioss.com.cn
techsupport@bioss.com.cn
400-901-9800

DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 177 **SWISS:** Q15109

Target: RAGE

Immunogen: KLH conjugated synthetic peptide derived from human AGER Isoform 1, not for Isoform 2: 41-150/404. < Extracellular >

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Advanced glycosylation end product-specific receptor (AGER; RAGE) is a member of the immunoglobulin superfamily of cell surface molecules that binds molecules that have been irreversibly modified by non-enzymatic glycation and oxidation, and are know as advanced glycation end products (AGEs). It is expressed by endothelium, mononuclear phagocytes, neurons and smooth muscle cells. Whereas RAGE is present at high levels during development, especially in the central nervous system, its levels decline during maturity.The increased expression of RAGE is associated with several pathological states, such as diabetic vasculopathy, neuropathy, retinopathy and other disorders, including Alzheimer's disease and immune/inflammatory reactions of the vessel walls. In diabetic tissues, the production of RAGE is due to the overproduction of AGEs that eventually overwhelm the protective properties of RAGE. This results in oxidative stress and endothelial cell dysfunction that leads to vascular disease in diabetics. In the brain, RAGE also binds amyloid beta (Ab). Because Ab is overproduced in neurons and vessels in the brains of Alzheimer disease, this leads to the hyperstimulation of RAGE. The RAGE-Ab interaction is thought to result in oxidative stress leading to neuronal degeneration.

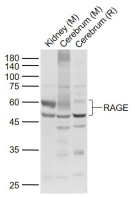
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Mouse, Rat (predicted: Human, Pig, Cow, Dog)

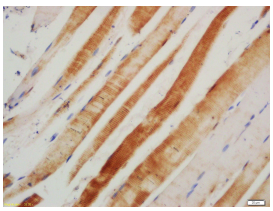
Predicted MW.: 42 kDa

Subcellular Location: Secreted ,Cell membrane

VALIDATION IMAGES



Sample: Lane 1: Kidney (Mouse) Lysate at 40 ug Lane 2: Cerebrum (Mouse) Lysate at 40 ug Lane 3: Cerebrum (Rat) Lysate at 40 ug Primary: Anti-RAGE (bs-4999R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 50/43/55 kD Observed band size: 58/50 kD



Tissue/cell: rat skeletal muscle; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-RAGE Polyclonal Antibody, Unconjugated(bs-4999R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

SELECTED CITATIONS

- **[IF=9.038]** Xuting Liu. et al. Amorphous silica nanoparticles induce inflammation via activation of NLRP3 inflammasome and HMGB1/TLR4/MYD88/NF-kb signaling pathway in HUVEC cells. J Hazard Mater. 2021 Feb;404:124050 WB,IP ;Human. 33053467
- **[IF=8]** Jiaxing Zhang. et al. Artesunate-Nanoliposome-TPP, a Novel Drug Delivery System That Targets the Mitochondria, Attenuates Cisplatin-Induced Acute Kidney Injury by Suppressing Oxidative Stress and Inflammatory Effects. INT J NANOMED. 2024 Feb 11 IF,WB ;Mouse. 38371457
- **[IF=4.831]** Haoqiang Zhang. et al. Liraglutide improved the cognitive function of diabetic mice via the receptor of advanced glycation end products down-regulation.. Aging-Us. 2021 Jan 15; 13(1): 525–536 WB,IF ;Fish. 33298623
- **[IF=5.195]** Qin Pan-Yue. et al. Effect and mechanisms of Polygonatum kingianum (polygonati rhizome) on wound healing in diabetic rats. J ETHNOPHARMACOL. 2022 Nov;298:115612 WB ;Rat. 35987409
- **[IF=4.6]** Hitoshi Goto. et al. Trimebutine prevents corneal inflammation in a rat alkali burn model. SCI REP-UK. 2024; 14: 12111 IHC ;Rat. 38802470