bs-0177R **[Primary Antibody]**

RAGE Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 81722 **SWISS:** Q63495

Target: RAGE

Immunogen: KLH conjugated synthetic peptide derived from rat AGER: 151-250/403. < 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.

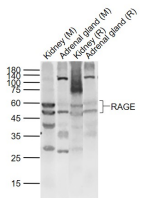
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1µg /test)

Reactivity: Human, Mouse, Rat

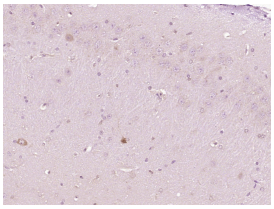
Predicted MW.: 42 kDa

Subcellular Location: Secreted ,Cell membrane

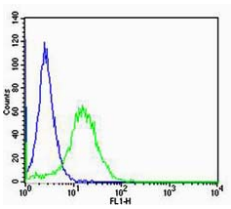
VALIDATION IMAGES



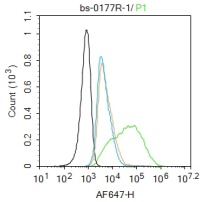
Sample: Lane 1: Kidney (Mouse) Lysate at 40 ug Lane 2: Adrenal gland (Mouse) Lysate at 40 ug Lane 3: Kidney (Rat) Lysate at 40 ug Lane 4: Adrenal gland (Rat) Lysate at 40 ug Primary: Anti-RAGE (bs-0177R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 42 kD Observed band size: 58/50 kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RAGE) Polyclonal Antibody, Unconjugated (bs-0177R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Cell: NIH/3T3 Concentration:1:100 Host/Isotype:Rabbit/IgG Flow cytometric analysis of Rabbit IgG isotype control (Cat#: bs-0177R) on NIH/3T3(green) compared with control in the absence of primary antibody (blue) followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG(H+L) secondary antibody .



Blank control: MCF7. Primary Antibody (green line): Rabbit Anti-RAGE antibody (bs-0177R) Dilution: 1μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF647 Dilution: 1μg /test. Protocol The cells were incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=10.19]** Aditi A. Joshi. et al. RAGE antagonism with azeliragon improves xenograft rejection by T cells in humanized mice.. CLIN IMMUNOL. 2022 Oct;:109165 FCM ;Mouse. 36257528
- **[IF=7.5]** Ola A. Habotta. et al. Sesquiterpene nootkatone counteracted the melamine-induced neurotoxicity via repressing of oxidative stress, inflammatory, and apoptotic trajectories. BIOMED PHARMACOTHER. 2023 Sep;165:115133 IHC ;Rat. 37454594
- **[IF=6.656]** Zheng-lan Duan. et al. Wumei Wan attenuates angiogenesis and inflammation by modulating RAGE signaling pathway in IBD: Network pharmacology analysis and experimental evidence. PHYTOMEDICINE. 2023 Mar;111:154658 WB,IHC ;Mouse. 36706698
- **[IF=7.129]** Xuesong Zhang. et al. HMGB 1 acetylation mediates trichloroethylene-induced immune kidney injury by facilitating endothelial cell-podocyte communication. ECOTOX ENVIRON SAFE. 2023 Jul;259:115042 WB,ICC ;Human. 37216866
- **[IF=6.304]** Chen Y et al. Dendritic cells-derived interferon-λ1 ameliorated inflammatory bone destruction through inhibiting osteoclastogenesis. Cell Death Dis. 2020 Jun 2;11(6):414. WB ;Mouse. 32488049