

**GOAT ANTI-RAGE
(RECEPTOR FOR ADVANCED GLYCOSYLATION END PRODUCTS)
POLYCLONAL ANTIBODY**

CATALOG NUMBER:	AB5484Z
LOT NUMBER:	xxxxx
QUANTITY:	200 μ L
SPECIFICITY:	Specific for receptor for advanced glycosylation end products (RAGE). This antibody immunolabels vessels from diabetic tissues and vessels and neurons from the brains of Alzheimer's Disease (AD) patients in formalin-fixed paraffin sections.
BACKGROUND:	<p>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 known 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.</p> <p>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 ($A\beta$). Because $A\beta$ is overproduced in neurons and vessels in the brains of Alzheimer disease, this leads to the hyperstimulation of RAGE. The RAGE-$A\beta$ interaction is thought to result in oxidative stress leading to neuronal degeneration.</p>
IMMUNOGEN:	Synthetic peptide that corresponds to amino acids 42-59 of the human receptor for advanced glycosylated end products.
APPLICATIONS:	<p><u>Western blot</u>: the antibody is expected to work for Western blot but specific performance has not been determined.</p> <p><u>Immunohistochemistry</u> on formalin fixed, paraffin embedded tissue sections: \geq 1:400. The antibody reacts well with human diabetic kidney. The antibody may show better reactivity after performing antigen retrieval by the citrate buffer/pressure cooker method.</p> <p><u>ELISA</u> against immunogen peptide: \geq 1:260,000 Optimal working dilutions must be determined by the end user.</p>
SPECIES REACTIVITIES:	Human. Other species have not been tested.
FORMAT:	Goat serum.
PRESENTATION:	Liquid. Contains no preservative.
STORAGE/HANDLING:	Maintain at -20°C in undiluted aliquots for up to 6 months after date of receipt. Avoid repeated freeze/thaw cycles.

Important Note: *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 μ L or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

For research use only; not for use as a diagnostic.

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