



20161123BB

Anti-Human RAGE (#8D11)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

Cat.-no.:	101-M612
Size:	100 µg
Lot. No.:	According to product label

Preparation: This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a mouse) immunized with extracellular domain of recombinant human RAGE.

Target Background

Synonyms (Target):	MOK, RAGE, RAGE1, RAGE-1
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Advanced glycation endproducts (AGE) are adducts formed by the enzymatic glycation or oxidation of macromolecules. AGE forms during aging and its formation is accelerated under pathophysiologic states such as diabetes, Alzheimer's disease, renal failure and immune/inflammatory disorders. Receptor for Advanced Glycation Endproducts (RAGE), named for its ability to bind AGE, is a multiligand receptor belonging the immunoglobulin (Ig) superfamily. Besides AGE, RAGE binds amyloid βpeptide, S100/calgranulin family proteins, high mobility group B1 (HMGB1, also known as amphoterin) and leukocyte integrins. The human RAGE gene encodes a 404 amino acid residues (aa) type I transmembrane glycoprotein with a 22 aa signal peptide, a 320 aa extracellular domain containing an Ig-like V-type domain and two Ig like Ce-type domains, a 21 aa transmembrane domain and a 41 aa cytoplasmic domain. The V type domain and the cytoplasmic domain are important for ligand binding and for intracellular signaling, respectively. Two alternative splice variants, lacking the Vtype domain or the cytoplasmic tail, are known. RAGE is highly expressed in the embryonic central nervous system. In adult tissues, RAGE is expressed at low levels in multiple tissues including endothelial and smooth muscle cells, mononuclear phagocytes, pericytes, microglia, neurons, cardiac myocytes and hepatocytes. The expression of RAGE is upregulated upon ligand interaction. Depending on the cellular context and interacting ligand, RAGE activation can trigger differential signaling pathways that affect divergent pathways of gene expression. RAGE activation modulates varied essential cellular responses (including inflammation, immunity, proliferation, cellular adhesion and migration) that contribute to cellular dysfunction associated with chronic diseases such as diabetes, cancer, amyloidoses and immune or inflammatory disorders.

Database References Target

Protein RefSeq:	NP_004976.2
Uniprot ID:	P01116
mRNA RefSeq:	NM_004985.3

Product Specifications

Host	Rat
Reactivity against	Human
Clonality	Monoclonal Antibody
Clone	(#8D11)
Isotype	IgG2
Purification	Protein G chromatography
Antigen	recombinant human RAGE
Formulation	lyophilized
Reconstitution buffer	PBS (sterile)

Reconstitution: Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

Stability: Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

Remarks: This antibody was selected for its ability to detect human RAGE.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

Applications

The antibody can be used within the following applications:

WB, N

Recommended usage:

WB: Use at 1:500-1000

Neutralisation of Receptor/Ligand interaction

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!