

**#6996** Store at -20C

## RAGE 1 (D1A12) Rabbit mAb


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**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---------------|-------------|--------------|-----------|-----------------|-------------|-----------------|
| WB            | H           | Endogenous   | 55        | Rabbit IgG      | #Q15109     | 177             |

### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### Specificity / Sensitivity

RAGE 1 (D1A12) Rabbit mAb recognizes endogenous levels of total RAGE 1 protein.

### Species predicted to react based on 100% sequence homology:

Monkey

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human RAGE 1 protein.

### Background

The receptor for advanced glycation end products (RAGE) is a member of the immunoglobulin (Ig) superfamily. It can be expressed as full-length, membrane-bound RAGE isoform 1 or as a secreted sRAGE protein that lacks a transmembrane domain (1). RAGE is detected during early developmental stages and in the lung under normal physiological conditions (2), and it is upregulated at sites of inflammation (3). Advanced glycation end products (AGEs) and a variety of other ligands interact with this receptor (1). Ligand binding activates full-length RAGE and initiates downstream signaling pathways that include activation of NF-κB, which leads to production of pro-inflammatory cytokines and inflammation (4). Activation of these pathways has been implicated in various disease states including Alzheimer's disease, diabetes, arthritis, and atherosclerosis (4). Soluble RAGE can competitively bind RAGE ligands in the extracellular environment, which prevents ligand interaction with full-length RAGE at the cell surface (1).

### Background References

1. Bierhaus, A. et al. (2005) *J Mol Med* 83, 876-86.
2. Brett, J. et al. (1993) *Am J Pathol* 143, 1699-712.
3. Sparvero, L.J. et al. (2009) *J Transl Med* 7, 17.
4. Lin, L. et al. (2009) *Front Biosci* 14, 1403-13.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**WB:** Western Blotting

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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