



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

# RAGE 1 Antibody

Store at -20C  
#4800

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

<b>Applications:</b> W, IHC-P	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 58	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #Q15109	<b>Entrez-Gene Id:</b> 177
----------------------------------	-------------------------	-----------------------------------	------------------------	----------------------------------	-------------------------------	-------------------------------

## Product Usage Information

### Application

Western Blotting  
Immunohistochemistry (Paraffin)

### Dilution

1:1000  
1:50

## Storage

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

## Specificity/Sensitivity

RAGE 1 Antibody detects endogenous levels of total RAGE 1 protein.

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

Monkey

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human RAGE isoform 1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

## 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

**W:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

## Cross-Reactivity Key

**H:** Human

## Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](http://cellsignal.com/trademarks) for more information.

## Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.