

# Human AGER / RAGE Protein

Catalog Number: 11629-HCCH



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

RAGE

### Protein Construction:

A DNA sequence encoding the mature form of human AGER (NP\_001127.1) (Met1-Ala 344) was expressed with six amino acids (LEVLFQ) at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio Activity:

1. Measured by its ability to compete with Biotinylated recombinant human AGER for binding to immobilized recombinant human Fc-S100B (Cat:10181-H01H) in a functional ELISA. 2. Measured by its ability to compete with Biotinylated recombinant human AGER for binding to immobilized recombinant mouse S100B-Fc (Cat:50986-M01H) in a functional ELISA. 3. Measured by its ability to compete with Biotinylated recombinant human AGER for binding to immobilized recombinant human S100A1-Fc (Cat:10179-H01HE) in a functional ELISA. 4. Measured by its ability to compete with Biotinylated recombinant human AGER for binding to immobilized recombinant human APP-Fc (Cat:10703-H02H) in a functional ELISA.

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Ala 23

### Molecular Mass:

The recombinant human AGER consists of 329 amino acids and predicts a molecular mass of 35 KDa. It migrates as an approximately 46-52 KDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

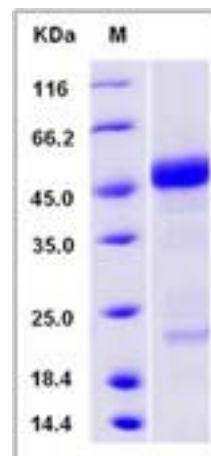
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

### SDS-PAGE:



## Protein Description

Receptor for Advanced Glycosylation End Products (RAGE, or AGER) is a member of the immunoglobulin super-family transmembrane proteins, as a signal transduction receptor which binds advanced glycation endproducts, certain members of the S100/calgranulin family of proteins, high mobility group box 1 (HMGB1), advanced oxidation protein products, and amyloid (beta-sheet fibrils). Initial studies investigating the role of RAGE in renal dysfunction focused on diabetes, neurodegenerative disorders, and inflammatory responses. However, RAGE also has roles in the pathogenesis of renal disorders that are not associated with diabetes, such as obesity-related glomerulopathy, doxorubicin-induced nephropathy, hypertensive nephropathy, lupus nephritis, renal amyloidosis, and ischemic renal injuries. RAGE represents an important factor in innate immunity against pathogens, but it also interacts with endogenous ligands, resulting in chronic inflammation. RAGE signaling has been implicated in multiple human illnesses, including atherosclerosis, arthritis, Alzheimer's disease, atherosclerosis and aging associated diseases.

## References

1.Zhou Z, *et al.* (2011) RAGE and its ligands in bone metabolism. *Front Biosci* (Schol Ed). 3: 768-76. 2.Mosquera JA. (2010) Role of the receptor for advanced glycation end products (RAGE) in inflammation]. *Invest Clin.* 51(2): 257-68. 3.D'Agati V, *et al.* (2010) RAGE and the pathogenesis of chronic kidney disease. *Nat Rev Nephrol.* 6(6): 352-60.

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For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>