Active Recombinant Rat Advanced Glycosylation End Product-Specific Receptor, Fc-tagged

Cat. No. Ager-540R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Agerprotein was expressed in Murine myeloma cell line with the Fc part of RatRAGE Gln24-Ala342 (N-terminus) and Human IgG1 Pro100-Lys330 (C-terminus).
Species	Rat
Source	Mammalian Cells
ProteinLength	24-342 a.a.
Description	Advancedglycation endproducts (AGEs) are adducts formed by the nonenzymatic glycationof macromolecules. Ager formation is acceleratedin oxidative and hyperglycemic conditions, diabetes, renal failure,atherosclerosis, Alzheimer's disease, arthritis, and in normal aging. Receptorfor advanced glycation endproducts (Ager) isa 35 kDa type I transmembrane protein belonging the immunoglobulinsuperfamily. Besides AGEs, Ager bindsβamyloid peptide, S100/calgranulin family proteins, HMGB1/amphoterin, andleukocyte integrins. Mature rat Agerconsists of a 319 amino acid (aa) extracellular domain (ECD) with one Iglike V-typedomain and two Ig-like Ctype domains, a 21 aa transmembrane segment, and a 40aa cytoplasmic domain.
Form	Lyophilized from a0.2 μm filtered solution in PBS.
N-terminalSequence	Gln24 predicted

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Molecular Weight	60 kDa (monomer)
Activity	Measured by itsbinding ability in a functional ELISA. rr Ager/Fc Chimera immobilized at 5μg/mL (100 μL/well) on a goat antihuman IgG Fc antibodycoated plate (0.5μg/well) can bind biotinylated advanced glycation endproducts of bovine serumalbumin with a linear range of 0.02-15 μg/mL.
Endotoxin Level	< 1.0EU per 1 μg of the protein by the LAL method.
SDS-PAGE	80-90 kDa,reducing conditions.
Purity	> 95%,by SDS-PAGE under reducing conditions and visualized by silver stain.
Reconstitution	100μg/mL in sterile PBS.
Storage	Use a manualdefrost freezer and avoid repeated freeze-thaw cycles. 12 months from date ofreceipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditionsafter reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.

GENE INFORMATION

Gene Name	Ager advanced glycosylation endproduct-specific receptor [Rattus norvegicus]
Official Symbol	Ager
Synonyms	Ager; advancedglycosylation end product-specific receptor; RAGE; receptor foradvanced glycosylation end products; advanced glycosylation end product-specificreceptor variant 2; advanced glycosylation end product-specific receptorvariant 3; advanced glycosylation end product-specific receptor variant 5

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Gene ID	81722
mRNA Refseq	NM_053336
Protein Refseq	NP_445788
Chromosome Location	20p12
Pathway	Activated TLR4signalling; Immune System; Innate Immune System; MyD88 cascade initiated onplasma membrane; MyD88 dependent cascade initiated on endosome; MyD88-independentcascade initiated on plasma membrane; MyD88:Mal cascade initiated on plasmamembrane; NFkB and MAP kinases activation mediated by TLR4 signalingrepertoire; RIG-I/MDA5 mediated induction of IFN-alpha/beta pathways; TAK1activates NFkB by phosphorylation and activation of IKKs complex; TRAF6Mediated Induction of proinflammatory cytokines; TRAF6 mediated NF-kBactivation; TRAF6 mediated induction of NFkB and MAP kinases upon TLR7/8 or 9activation; Toll Like Receptor 10 (TLR10) Cascade; Toll Receptor Cascades
Function	S100 alpha binding;S100 beta binding; advanced glycation end-product receptor activity; proteinbinding; receptor activity

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