

## Product datasheet for **SC331712**

### **RAGE (AGER) (NM\_001206940) Human Untagged Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RAGE (AGER) (NM_001206940) Human Untagged Clone
Tag:	Tag Free
Symbol:	RAGE
Synonyms:	RAGE; SCARJ1; sRAGE
Mammalian Cell Selection:	Neomycin
Vector:	<u>PCMV6-Neo</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001206940, the custom clone sequence may differ by one or more nucleotides

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ATGGCAGCCGGAACAGCAGTTGGAGCCTGGGTGCTGGTCTCAGTCTGTGGGGGGCAGTAGTGGTCTC
AAAACATCACAGCCCGGATTGGCGAGCCACTGGTCTGAAGTGTAAAGGGGCCCCAAGAAACCACCCCA
GCGGCTGGAATGGAACTGAACACAGGCCGGACAGAAGCTTGAAGGTCCTGTCTCCCCAGGGAGGAGGC
CCCTGGGACAGTGTGGCTCGTGTCTTCCAACGGCTCCCTCTTCCCTCCGGCTGTGGGATCCAGGATG
AGGGGATTTCCGGTGCCAGGCAATGAACAGGAATGAAAGGAGACCAAGTCCAACCTACCGAGTCCGTGT
CTACCAGATTCTGGGAAGCCAGAAATTGTAGATTCTGCCTCTGAACTCACGGCTGGTGTCCCAATAAG
GTGGGGACATGTGTGTCAGAGGGAAGCTACCCTGCAGGGACTCTTAGCTGGCACTTGGATGGGAAGCCCC
TGGTGCCTAATGAGAAGGGAGTATCTGTGAAGGAACAGACCAGGAGACACCCTGAGACAGGGCTCTTAC
ACTGCAGTCGGAGCTAATGGTGACCCACGCCCGGGGAGGAGATCCCCGTCCCACCTTCTCCTGTAGCTTC
AGCCCAGGCCCTCCCCGACACCGGGCCTTGCGCACAGCCCCATCCAGCCCCGTGTCTGGGAGCCTGTGC
CTCTGGAGGAGGTCCAATTGGTGGTGGAGCCAGAAGGTGGAGCAGTAGCTCCTGGTGAACCGTAACCCCT
GACCTGTGAAGTCCCTGCCAGCCCTCTCCTCAATCCACTGGATGAAGGATGGTGTGCCCTTGCCCTT
CCCCCAGCCCTGTGCTGATCCTCCCTGAGATAGGGCCTCAGGACCAGGGAACCTACAGCTGTGTGGCCA
CCCATTCAGCCACGGGCCCCAGGAAAGCCGTGCTGTGAGCATCAGCATCATCGAACCCAGGCGAGGGG
GCCAAGTCAGGTGAGGGGTTTGATAAAGTCAGGGAAGCAGAAGTAGCCCCAACACATGTGA
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Restriction Sites:	SgfI-MluI
ACCN:	NM_001206940



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001206940.1</a></u> , <u><a href="#">NP_001193869.1</a></u>
<b>RefSeq Size:</b>	1463 bp
<b>RefSeq ORF:</b>	1044 bp
<b>Locus ID:</b>	177
<b>UniProt ID:</b>	<u><a href="#">Q15109</a></u>
<b>Cytogenetics:</b>	6p21.32
<b>Protein Families:</b>	Druggable Genome, Secreted Protein, Transmembrane

**Gene Summary:**

The advanced glycosylation end product (AGE) receptor encoded by this gene is a member of the immunoglobulin superfamily of cell surface receptors. It is a multiligand receptor, and besides AGE, interacts with other molecules implicated in homeostasis, development, and inflammation, and certain diseases, such as diabetes and Alzheimer's disease. Many alternatively spliced transcript variants encoding different isoforms, as well as non-protein-coding variants, have been described for this gene (PMID:18089847). [provided by RefSeq, May 2011]

Transcript Variant: This variant (6, also known as RAGE\_v1) lacks the penultimate coding exon, and uses an alternate donor splice site at another coding exon compared to variant 1. This results in a frame-shift and a shorter isoform (6, also known as esRAGE and soluble RAGE) with a distinct C-terminus compared to isoform 1. This isoform lacks the transmembrane and intracellular domains, is secreted (PMID:18089847), and thought to function as a decoy receptor that inhibits RAGE signaling, and thus prevent the pathological progression of some pathologic conditions, such as Alzheimer's disease (PMID:18431028). Variants 6 and 9 encode the same isoform. Sequence Note: This Refseq, containing two in-frame translation initiation codons (at nt 8-10 and nt 101-103), is annotated with a CDS starting from the downstream AUG (dAUG) because the AGE receptor encoded by this gene is a known type 1 transmembrane protein requiring signal peptide for its function, and a signal peptide of 22 aa is predicted for the dAUG initiated protein. Translation initiation from the upstream AUG (uAUG) will add an extra 31 aa to the N-terminus, and no signal peptide is predicted for the uAUG initiated protein.