

## Product datasheet for **MC208117**

### Ager (NM\_007425) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ager (NM_007425) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ager
Synonyms:	RAGE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_007425, the custom clone sequence may differ by one or more nucleotides

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ATGCCAGCGGGACAGCAGCTAGAGCCTGGGTGCTGGTCTTGCTCTATGGGGAGCTGTAGCTGGTGGTC
AGAACATCACAGCCCGATTGGAGAGCCACTTGTGCTAAGCTGTAAGGGGCCCCAAGAAGCCGCCCA
GCAGCTAGAATGGAACTGAACACAGGAAGAACTGAAGCTTGAAGGTCTCTCTCCCCAGGGAGGCCCC
TGGGACAGCGTGGCTCGAATCCTCCCAATGGTCCCTCCTCCTCCAGCCACTGGAATTGTCGATGAGG
GGACTTCCGGTGTGGGCAACTAACAGGCGAGGGAAGGAGGTCAAGTCCAACCTACCGAGTCCGAGTCTA
CCAGATTCCTGGGAAGCCAGAAATTGTGGATCCTGCCTCTGAACCTCACAGCCAGTGTCCCTAATAAGGTG
GGGACATGTGTGCTGAGGGAAGCTACCCTGCAGGGACCCTTAGCTGGCACTTAGATGGGAACTTCTGA
TTCCCGATGGCAAAGAACTCGTGAAGGAAGAGACCAGGAGACACCCTGAGACGGGACTCTTACACT
GCGGTGAGAGCTGACAGTATCCCCACCAAGGAGGAACCCATCCTACCTTCTCCTGCAGTTTCAGCCTG
GGCCTTCCCCGGCGCAGACCCCTGAACACAGCCCCATCCAACCTCCGAGTCAGGGAGCCTGGGCCTCCAG
AGGGCATTGAGCTGTTGGTTGAGCCTGAAGGTGGAATAGTCGCTCCTGGTGGGACTGTGACCTTGACCTG
TGCCATCTCTGCCAGCCCCCTCCTCAGGTCCACTGGATAAAGGATGGTGACCCCTTGCCCTGGCTCCC
AGCCCTGTGCTGCTCCTCCTGAGGTGGGCACGAGGATGAGGGCACCTATAGCTGCGTGGCCACCCACC
CTAGCCACGGACCTCAGGAAAGCCCTCCTGTGAGTACAGGTCACAGAAACCGGATGAGGGGCCAGC
TGAAGGCTCTGTGGTGAGTCTGGGCTGGGTACGCTAGCCCTGGCCTTGGGGATCCTGGGAGCCTGGGA
GTAGTAGCCCTGCTCGTGGGGCTATCCTGTGGGAAAACGACAACCCAGGCGTGAGGAGAGGAAGGCC
CGGAAAGCCAGGAGGATGAGGAGGAACGTGCAGAGCTGAATCAGTCAGAGGAAGCGGAGATGCCAGAGAA
TGGTGCCGGGGACCGTAA
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Restriction Sites:	Sgfl-MluI
ACCN:	NM_007425



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Insert Size:	1209 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a></p>
Components:	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).
Reconstitution Method:	<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>
RefSeq:	<a href="#">BC061182</a> , <a href="#">AAH61182</a>
RefSeq Size:	1399 bp
RefSeq ORF:	1209 bp
Locus ID:	11596
UniProt ID:	<a href="#">Q62151</a>
Cytogenetics:	17 B1

**Gene Summary:**

Mediates interactions of advanced glycosylation end products (AGE). These are nonenzymatically glycosylated proteins which accumulate in vascular tissue in aging and at an accelerated rate in diabetes. Acts as a mediator of both acute and chronic vascular inflammation in conditions such as atherosclerosis and in particular as a complication of diabetes. AGE/RAGE signaling plays an important role in regulating the production/expression of TNF-alpha, oxidative stress, and endothelial dysfunction in type 2 diabetes. Interaction with S100A12 on endothelium, mononuclear phagocytes, and lymphocytes triggers cellular activation, with generation of key proinflammatory mediators. Interaction with S100B after myocardial infarction may play a role in myocyte apoptosis by activating ERK1/2 and p53/TP53 signaling. Can also bind oligonucleotides. Receptor for amyloid beta peptide. Contributes to the translocation of amyloid-beta peptide (ABPP) across the cell membrane from the extracellular to the intracellular space in cortical neurons. ABPP-initiated RAGE signaling, especially stimulation of p38 mitogen-activated protein kinase (MAPK), has the capacity to drive a transport system delivering ABPP as a complex with RAGE to the intraneuronal space. RAGE-dependent signaling in microglia contributes to neuroinflammation, amyloid accumulation, and impaired learning/memory in a mouse model of Alzheimer disease.

[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) encodes the longest isoform (a).