OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MC227461

Ager (NM_001271422) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ager (NM_001271422) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ager
Synonyms:	RAGE
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

Fully Sequenced ORF:

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>MC227461 representing NM_001271422
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCAGCGGGGACAGCAGCTAGAGCCTGGGTGCTGGTTCTTGCTCTATGGGGAGCTGTAGCTGGTGGTC
AGAACATCACAGCCCGGATTGGAGAGCCACTTGTGCTAAGCTGTAAGGGGGCCCCTAAGAAGCCGCCCCA
GCAGCTAGAATGGAAACTGAACACAGGAAGAACTGAAGCTTGGAAGGTCCTCTCTCCCCAGGGAGGCCCC
TGGGACAGCGTGGCTCGAATCCTCCCCAATGGTTCCCTCCTCCTTCCAGCCACTGGAATTGTCGATGAGG
GGACTTTCCGGTGTCGGGCAACTAACAGGCGAGGGAAGGAGGTCAAGTCCAACTACCGAGTCCGAGTCTA
CCAGATTCCTGGGAAGCCAGAAATTGTGGATCCTGCCTCTGAACTCACAGCCAGTGTCCCTAATAAGGTG
GGGACATGTGTGTCTGAGGGAAGCTACCCTGCAGGGACCCTTAGCTGGCACTTAGATGGGAAACTTCTGA
TTCCCGATGGCAAAGAAACACTCGTGAAGGAAGAGACCAGGAGACACCCTGAGACGGGACTCTTTACACT
GCGGTCAGAGCTGACAGTGATCCCCACCCAAGGAGGAACCCATCCTACCTTCTCCTGCAGTTTCAGCCTG
GGCCTTCCCCGGCGCAGACCCCTGAACACAGCCCCCATCCAACTCCGAGTCAGGGAGCCTGGGCCTCCAG
AGGGCATTCAGCTGTTGGTTGAGCCTGAAGGTGGAATAGTCGCTCCTGGTGGGACTGTGACCTTGACCTG
TGCCATCTCTGCCCAGCCCCCTCCTCAGGTCCACTGGATAAAGGATGGTGCACCCTTGCCCCTGGCTCCC
AGCCCTGTGCTGCTCCTCCCTGAGGTGGGGCACGAGGATGAGGGCACCTATAGCTGCGTGGCCACCCACC
CTAGCCACGGACCTCAGGAAAGCCCTCCTGTCAGCATCAGGGTCACAGGCTCTGTGGGTGAGTCTGGGCT
GGGTACGCTAGCCCTGGCCTTGGGGATCCTGGGAGGCCTGGGAGTAGTAGCCCTGCTCGTCGGGGCTATC
CTGTGGCGAAAACGACAACCCAGGCGTGAGGAGAGGAAGGCCCCGGAAAGCCAGGAGGATGAGGAGGAAC
GTGCAGAGCTGAATCAGTCAGAGGAAGCGGAGATGCCAGAGAATGGTGCCGGGGGACCGTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
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Restriction Sites: SgfI-MluI

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ACCN:	NM_001271422
Insert Size:	1182 bp
OTI Disclaimer:	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).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 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.
RefSeq:	NM_001271422.1, NP_001258351.1
RefSeq Size:	1360 bp
RefSeq ORF:	1182 bp
Locus ID:	11596
UniProt ID:	Q62151
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 (2) lacks an in-frame exon, compared to variant 1. The encoded isoform (b) is shorter than isoform a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.